

B

f. 16

12 cl 16

62255/8

B
fx 16

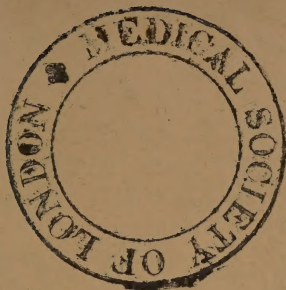
MEDICAL SOCIETY
OF LONDON



ACCESSION NUMBER

PRESS MARK

CHILDS, G.B.



Just Published, by the same Author,

With Plates. 8vo. Price 5s.

ON THE IMPROVEMENT AND PRESERVATION
OF THE
FEMALE FIGURE;

WITH A NEW MODE OF TREATMENT OF LATERAL CURVATURE OF THE
SPINE.

"We take our leave of this exceedingly clever book, with a hope, that ere long a copy may be found in possession of every family, and in every boarding-school, in the kingdom."—*STANDARD, April 16th, 1840.*

"This little volume contains a variety of excellent observations on the important subjects of female health and beauty, as well as on the surgical treatment required to remedy original malformation, neglect, or—what, alas! is still more frequent—mistaken treatment of parents, in subjecting girls to the injuries resulting from the use of stays. Mr. Childs does not go quite so far as Joseph the Second, of Germany, who abolished stays and hoops from his court, and prescribed them as the fitting costume and punishment of criminal and abandoned women; but he does better. He does not hope to wage war successfully with fashion, but he points out the modifications dictated by policy as well as science; and we trust, for the sake of suffering humanity, that his injunctions may meet with the attention they merit.

"The chapters on the passive and active exercises, for the removal of disease, and the improvement of health and beauty, contain some very judicious rules of practice, and well-considered observations on the effects of different systems."—*MORNING POST, May 7th, 1840.*

"One of the most useful family manuals, having reference to the health and deportment of young and growing females, that has for some time appeared * * * * * Mr. Childs searches into causes with an unsparing zeal, and avoids that false delicacy which always induces to error."—*COURT JOURNAL, May 2d, 1840.*

"This is a most important work, demonstrating the injurious and ungraceful effects of the fashions prevalent in female dress. We confess, we should have little hope of reform on the score of health, were reform not also pleaded for on the score of gracefulness," &c. &c.—*WEEKLY CHRONICLE, April 26th, 1840.*

"The subject of this work is one that has often employed the pen of the medical writer, but is yet so important, that it can never require the recommendation of mere novelty to warrant a recurrence to it; and in this instance it is treated in a lucid and popular manner, well calculated to make the author's remarks upon it more than ordinarily useful. On that constant theme of medical invective, "tight lacing," our author is really so eloquent that we cannot refrain from introducing some of his remarks into our columns."—*ÆGUS, April 26th, 1840.*

"Mr. Childs's sensible observations on the physical injury produced by the system of ultra accomplishments, as pursued in modern boarding-schools, to the exclusion of healthful exercise and recreation, are well deserving the attention of parents, and, where influential, will claim a large amount of obligation from the liberated victims of the durance he deprecates, not only as regards their present enjoyment, but also their future health and happiness," &c. &c.—*COURT MAGAZINE, August, 1840.*

"The author has treated the subject with much clearness, and his remarks deserve the close attention of every mother, and of all those who, for the most important period of girlhood, take a mother's place—Governesses. We subjoin a short extract, trusting, however, that our readers will not be content with this, but peruse the whole work.—COUNTY HERALD, *May 23d*, 1840.

"Mr. Childs's book we find a plain, forcible commentary upon the motto he has chosen to affix to it; and the volume may not unfittingly be regarded as a valuable exposition of consequences resulting from the vices of modern female education," &c.—MEDICAL TIMES, *June 20th*, 1840.

"This is a well-written, common-sense book, divested of professional technicalities, and indeed perfectly intelligible to parents and conductors of public seminaries, to whom the subject is of the greatest importance. The value of the work is illustrated by the lithographic illustrations, which at once instruct and please the reader."—WEST BRITON, *May 1st*, 1840.

"We have perused with attention and interest the present work, and have found it to contain many useful remarks. * * * * * However, the work of Mr. Childs's deserves particular attention, for the clear and popular manner in which the subject is treated, and for the many original practical remarks * * * * * We hope that Mr. Childs's book will find many readers, particularly among parents, schoolmasters, and tutors; for by knowing, and following his plan, one of the greatest objects of our life, "*mens sana in corpore sano*," a healthy mind in a healthy body, will be attained.—SATIRIST, *April*, 1840.

HARVEY AND DARTON, GRACECHURCH STREET.

Also, by the same Author,

A PRACTICAL TREATISE
ON THE
NEW OPERATION
FOR
LATERAL CURVATURE
OF
THE SPINE.

SHOWING THOSE CASES IN WHICH ALONE THE OPERATION
IS ADMISSIBLE.

With Plates.

WHITTAKER AND CO., AVE-MARIA LANE.

GONORRHŒA,

AND ITS CONSEQUENCES;

WITH

A SHORT HISTORICAL SKETCH

OF THE

Venereal Disease.

BY G. B. CHILDS, M.R.C.S.

AUTHOR OF A WORK ON LATERAL CURVATURE OF THE SPINE, AND OF A
PRACTICAL TREATISE ON THE NEW OPERATION FOR THE SAME;
MEMBER OF THE HUNTERIAN SOCIETY, &c.

LONDON:

SAMUEL HIGHLEY, 32, FLEET STREET.

1843.

PREFACE.

TO

WILLIAM COULSON, Esq.

AUTHOR OF A WORK ON DISEASES OF THE BLADDER,

THE FOLLOWING PAGES

ARE INSCRIBED,

AS EVIDENCE OF THE ESTEEM OF

THE AUTHOR.

TO

WILLIAM COULSON, Esq.

AUTHOR OF A WORK ON DISSEMINATION OF THE MENTAL

THE FOLLOWING PAGES

ARE INCLOSED,

AS EVIDENCE OF THE INTEREST OF

THE AUTHOR.

PREFACE.

IN offering a work of the following description to the notice of the profession and of the public, the author is sensible of the important difficulties he has had to encounter, in order to render it acceptable to both.

The number of works which have already appeared on the same subject, and which have followed in such rapid succession, have left perhaps but little to be said or done by subsequent writers; and although this may tend to satiate the taste, yet the amount of good which ensues more than compensates for this evil, by rendering more and more perfect the treatment of a disease which, unfortunately, is too familiar to practitioners in large towns.

With such disadvantages, as long as an author does his best, to embody his experience with that of others, and to express his views in language sufficiently perspicuous, it is all that can reasonably be expected; for each one, by adding his opinions, however humble they may be, renders some assistance to the perfection of an object.

Such has been the author's intent in the following pages; and it will be seen, that the opinions of others have been consulted. The success, or non-success, of his purpose he leaves to be determined by those who may do him the honour of a patient investigation. No man can serve two masters: the difficulty, therefore of writing a work which shall be appreciated by the profession and by the public, is too well known to require explanation.

The author has endeavoured to steer between this Scylla and Charybdis; and, without despoiling medical language of its phraseology, has employed such only as may be easy of comprehension; hoping thus to have saved himself from the charge of empiricism.

In the "Historical Sketch" which opens his work, the author trusts he may not be accused of trifling with the Sacred Volume. The quotations alluded to have been introduced under a conviction that they are strictly relevant to the investigation of his subject; and he trusts they may be received in the same spirit they are offered, *viz.*, a desire to elucidate facts, and a profound reverence for the source from which they are derived.

34, FORE STREET, CITY.

CONTENTS.

HISTORICAL SKETCH OF THE VENEREAL DISEASE	Page 1
GONORRHOEA, BLENORRHAGIA, OR GONORRHOEAL URETHRITIS ...	23
Symptoms of Gonorrhœa	63
Treatment of Gonorrhœa	68
Ardor Urinæ	90
Chordee	91
Dysuria	93
Inflammation of the Prostate	—
Inflammation of the Mucous Membrane of the Bladder ...	95
Gleet.....	—
Balanitis and Posthitis	103
CONSEQUENCES OF GONORRHOEA	107
Stricture	—
Epididymitis, or Inflammation of the Testicle	134
Phymosis and Paraphymosis	142
Vegetations, or Warty Excrescences	148
Blenorrhœa Ophthalmia	151

ERRATA.

Page 7, *lines 9 and 11, for Scozia read Scorra.*

30, *line 8, for disease read cases.*

— — 9, *for a chancre read chancres.*

76, — 1, *for grugum read grugun.*

93, — 20, *insert tincture of before opium.*

95, — 12, *for the read this treatment.*

HISTORICAL SKETCH

OF THE

Venereal Disease.

VARIOUS opinions have prevailed respecting the origin of the venereal disease: many authors believe that it has existed from time immemorial, and will exist as long as promiscuous sexual intercourse takes place, whilst others adopt an opposite opinion, and affirm that it originated only during the fourteenth century.

The Chinese physicians are of opinion, that the venereal disease has been known in their country from the remotest period; and many of their oldest writers speak of it as a most ancient disease.

From passages contained in the seventh section of his third book, on epidemics, I think there can be little doubt but that the disease was familiar to Hippocrates, who speaks of defluxions to the private parts, —exulcerations,—tubercles in the groin,—large pustules,—spreading ulcers,—abscesses and suppurations, —mutilations of the bones and nerves,—a collection of

humour, not like matter, but worse than matter,—baldness, and falling off of the beard, with or without a fever,—abscesses near the testicles, &c. &c.

Galen, in his chapter *De Locis Affectis*, speaks of ulcerations of the genitals, buboes, phymosis, &c.

The delicacy observed by these authors, when alluding to diseases of the genito-urinary apparatus, tends to throw great obscurity over their writings, as we do not find through all their dissertations any definite mention of the male or feminine members.

Celsus, in his section on diseases of these organs, alludes to this, and expresses the difficulty he experiences in affording a description of them, without employing coarse language. He distinctly speaks of phymosis, ulcers on the back of the prepuce, and on the glans, either humid and purulent, or clean and dry—gangrene—warts—tubercles, &c. &c.

We find also that a disease very similar in its character to the present form of venereal disease is frequently spoken of by historians. Thus, Herodotus relates that the Scythians, after making an irruption into Palestine, and plundering the Temple of Venus Urania at Ascalon, were afflicted by this goddess with a *feminine* disease, and that those who laboured

under this distemper were called by the Scythians execrable.

Eusebius tells us, that the Emperor Galenus Maximianus was afflicted with an incurable ulcer in the perinæum, which communicated with his bowels, with an incredible number of worms; and that the smell arising from it was so bad, that some of his physicians were condemned to die because they were not able to bear it, and others because they did not know how to cure it.

The testimony of Palladius, bishop of Helinopolis, is still more conclusive. A person named Ero, who was both a glutton and a drunkard, and a man of very strong passions, had connexion with a female, by whom he was affected with an ulcer in the glans, which made so rapid a progress, that in a fortnight his genitals mortified, and dropped off of their own accord.

Horace, doubtless, alludes to the venereal disease in the following passage :—

—“ Dum Capitolio
Regina dementes ruinas,
Fusus et imperio parabat
Contaminato cum grege turpium
Morbo virorum.”—Od. 37, lib. 1.

By referring to the Holy Scriptures we find that the children of Israel were afflicted with a disease very similar in its symptoms to virulent gonorrhœa. This we learn from the 15th chap. of Leviticus :—

“ Verse 2. When any man hath a running issue out of his flesh, because of his issue he is unclean.

“ 3. And this shall be his uncleanness in his issue: whether his flesh run with his issue, or his flesh be stopped from his issue, it is his uncleanness.

“ 4. Every bed whereon he lieth that hath the issue is unclean; and every thing whereon he sitteth shall be unclean.

“ 5. And whosoever toucheth his bed shall wash his clothes, and bathe himself in water, and be unclean until the even.”

“ 9. And what saddle soever he rideth upon that hath the issue shall be unclean.”

“ 16. And if any man's seed of copulation go out from him, then he shall wash all his flesh in water, and be unclean until the even.

“ 17. And every garment, and every skin, whereon is the seed of copulation, shall be washed with water, and be unclean until the even.

“ 18. The woman also with whom man shall lie with seed of copulation, they shall both bathe themselves in water, and be unclean until the even.”

Again, the “ *sore boil*” spoken of by Job with which Satan afflicted him, was no other than a form of venereal ulceration described by authors of the present day, thus:—

Chap. vii. verse 5. “ My flesh is clothed with worms and clods of dust; my skin is broken, and become loathsome.”

“ 20. I have sinned ; what shall I do unto thee, O thou Preserver of men ?”

Chap. xix. verse 17. “ My breath is strange to my wife, though I entreated for the children’s sake of mine own body.”

Chap. xxx. verse 17. “ My bones are pierced in me in the night season ; and my sinews take no rest.

“ 18. By the great force of my disease is my garment changed ; it bindeth me about as the collar of my coat.”

“ 30. My skin is black upon me, and my bones are burnt with heat.”

Again in the 38th Psalm we find the following passages :—

“ Verse 3. There is no soundness in my flesh because of thine anger ; neither is there any rest in my bones because of my sin.”

“ 5. My wounds stink, and are corrupt, because of my foolishness.”

“ 7. For my loins are filled with a loathsome disease, and there is no soundness in my flesh.”

“ 11. My lovers and my friends stand aloof from my sore, and my kinsmen stand afar off.”

Many of the earlier writers on this disease repudiate the idea of its great antiquity, and date its origin between the years 1494 and 1496, after Charles the Eighth of France had carried his arms into Italy. It is supposed to have been brought into that country by the followers of Christopher Columbus, on his return from visiting the New World, making its first ravages amongst the Neapolitan women.

Ulrichus de Hutten, a German knight, who was afflicted with syphilis nine years, and underwent eleven salivations for its cure, dates its commencement from the year 1493. In his Treatise "*De Morbo Gallico*," published in 1519, he says—"It hath pleased God that in our time sickness should arise unknown to our forefathers, as we have reason to surmise. In the year of Christ 1493, or thereabouts, this evil began amongst the people not only of France, but originally at Naples in the French camp, who under King Charles were set down before that place, and where it was taken notice of before it came elsewhere; upon which the French, disdaining that it should be called of their country, gave it the name *Neapolitane*, or the *Evil of Naples*, reckoning it, as before observed, a scandal to them to have it called by the name of the *French Pox*."*

On its first appearance, a great deal of superstition prevailed respecting its origin;—many attributing its outbreak to the wrath of God, sent from heaven as a scourge for the wickedness of man; and others, that it proceeded from the conjunction of Saturn and Mars, which happened about that time.

* Translated into English by a canon of Marten Abbey.

I believe the first European writer who is said to have alluded more particularly to this disease was John Müller, better known as Regio-montanus, who is stated by Paracelsus to have foretold its outbreak, in a work published in 1474 on astrology, about twenty years before its appearance at Naples. But the earliest and most detailed account was given by Joseph Grundpeck, a German physician, in 1496, in his work styled “ Tractatus de Pestilentiali Scoziâ, sive Mala de Frantzios,” in which he affirms, that the pestilential scozia, as he terms it, was a disease lately inflicted upon mankind, and seemed to be a plague sent down from the citadel of the immortal gods upon the French, and that before that time it was unheard of and unknown.

Coradus Gilinus, master of arts and physician, in 1497, wrote to Sigismund Duke of Este, son of Hercules, his Opusculum de Morbo Gallico, stating his conviction, that the disease must have commenced either on the 16th January, 1496, owing to the conjunction of Saturn and Mars, or to the conjunction of Jupiter and Mars, which happened on the 17th of January, 1494. He calls it the *Ignis Persicus*, and believes it to have been an epidemic induced by a vitiated state of the atmosphere.

Gaspar Torella, of Valencia, in Spain, who published his work in 1599, believed that it broke out first in 1493.

Wendelinus Hock, a German by birth, was of the same opinion. His work was published in 1502.

John de Vigo, a Genoese, who was surgeon to Pope Julius II., in his work "*Chirurgia Copiosa*," published in 1503, says, this disease appeared all over Italy in the month of December, 1494.

Jacobus Cataneus, in 1516, says, the disease first broke out at Naples in 1494; and he believed it to be a poison generated by the natural uterine secretion.

Laurentius Frisius, a German doctor of arts and physic, in his *Epitome* published in 1532, states, that the disease began to rage most violently in 1496, and was so catching, that the leprous even would not live with those who were affected with it; that the poorer classes were banished from their homes, and sent into the woods and fields to live, and that the physicians would not venture to visit one of those so affected.

A host of others subsequently wrote in support of these opinions: Aloysius Lobera, physician to Charles V., king of Spain, who, in 1544, published a work on the four court diseases;—Gabriel Fallopius,

of Modena, in a posthumous paper published by his pupils in 1564;—Sennertus, in 1620, in his “*Opera Omnia in tres tomos divisa*”;—Astruc, in his work, 1736;—and many others.

Amongst the first to impugn these statements was Nicholas Leonicens, of Vicentia, professor at Padua for three years, and afterwards at France upwards of sixty, who was the first to translate the works of Hippocrates and Galen into Latin. In his work on the venereal disease, dedicated to John Francis of Mirandola, Count of Concordia, he states his conviction, that the disease was familiar to Hippocrates, and was described by him as “*puddendorum carbunculi et putridines*.”

Sebastian Aquilanus, who wrote an epistle to Lewis de Gonzaga, bishop of Mantua, in 1498, contends for the antiquity of the venereal disease, and speaks of it as the elephantiasis described by Galen, Celsus, and Pliny.

Anthony Scarraculus, of Modena, a pupil of Leonicens, in his “*Disputatio Utilis de Morbo Gallico*,” published in 1498, undertakes to defend the opinions advanced by his master, and which were attacked by Natalis Montesaurus of Verona.

Aurelius Minadoüs, of Rhodes, who in 1596 was chief professor of physic in the university of Padua, and who published a tract during the same year, says, “ Ego sum ex illorum classe, qui putant fuisse semper hunc morbum; cum enim considero eâdem naturâ præditos homines, eodem cœlo natos, sub iisdem sideribus educatos, cum idem sit mundus qui fuit olim, cumque nec dierum nec horarum nec omnino temporum ordo sit mutatus, non potest mihi aliter in captum mentis pervenire, quam omnes fuisse semper eisdem morbis obnoxios, potuisse semper urgere hæc mala et multa non esse nova se, sed novis videri nova, causas naturales milies easdem extitisse, similem morbum ex causis similibus etiam superioribus ætatibus potuisse contingere.”

Various other opinions prevailed respecting the origin of this disease; some believing that it arose from feeding upon human flesh, and that the victuallers who supplied the French army with food mixed the flesh of dead men with that of boars.

Fioravantus, a famous Italian empiric, it is said, believing it to be the effect of a creature being fed upon flesh of its own kind, mixed swine's flesh with other meat, and fed a hog with it, and within a few

days the bristles and hairs fell off, and pustules arose on the skin. He pursued the same experiment with a dog, and with the same effect.

It was supposed that the disease was not peculiar to mankind, but that it frequently attacked other creatures. This was even the opinion of Dr. Turner, who, in his dissertation on the venereal disease published in 1727, relates the following case:—"I well remember a lean cur in the house I lived, that was always running after the salt and proud bitches in the streets, being frequently lost for a week together, would then come home with a dripping of purulent matter from the penis, which seemed also to be attended with a *stranguria*. The matter was of a deep yellow colour, exactly like that which flows in the gonorrhea, as it is called, from men."*

The first author, I believe, who traced the disease to its true source on the continent was John Maynard, of Ferrara, who, in 1519, asserts, that it first made its appearance at Valencia, in Arragon, in a lady of

* This opinion is at variance with that of Mr. Hunter, who states that no animal is known to be subject to this disease. Mr. Ricord has in numerous instances inoculated animals with the venereal virus, such as dogs, rabbits, Guinea-pigs, pigeons, &c., but always with a negative result.

pleasure, who contracted it by cohabiting with a leprous knight, and who in a few days infected upwards of 400 gallants.

Paracelsus (called the Hermit, from being born at Einsidlen,* a small village in Switzerland) says, that it derived its origin from a leprous Frenchman having connexion with a female who had venereal buboes on her at the time, and who afterwards infected every one who lay with her, and that it thus arose, in the same manner "as from the coition of a horse and ass the race of mules is produced."

Gonsalvo Fernandez, of Oviedo, who resided at Barcelona in 1493 (the same year that Columbus returned from St. Domingo, then called Hispaniola,) in his "*Summarie de la Historia General et Natural de las Indias Occidentales*," tells us, that the disease was common to all the West Indies; that there were few christians who lay with the native women but what were affected with it, and that it was imported from thence into Spain by those who returned with Columbus.

Brassavolus of Ferrara, a pupil of Leoniceus, states, that it arose in the French camp from a lady of

* Which means, in the German, *eremus*, a wilderness.

high rank, who was much addicted to the pleasures of Venus.

One of the greatest supporters of the antiquity of the venereal disease was a Mr. William Becket, who, in 1720, published a dissertation in favour of this opinion, and brought forward many authorities in support of his statements. From these we are led to infer, that the disease was known, even in England, prior to its outbreak on the continent.

His earliest authority is John Arden, a surgeon to Richard II., who resided in London at the close of the fourteenth century, and during whose time a number of stews, by public authority, were allowed to be kept in the borough of Southwark.

The following regulations respecting these stews, which were situated along the banks of the Thames, I have taken from Dr. Turner's work. They are interesting to the curious:—

“Item,—The steward shall take of every common woman within the said lordship, at each of the four quarters of the year, fourpence; and at the leet, fourpence for his dinner.

“Item,—The bailiff shall have and take &c. threepence for every quarter.

“FEES TO THE LORD IN COURT.

“Item,—He shall have of every woman that appeareth not in the

court, fourpence; and the bailiff to answer thereto under the title, *Nummus mulierum absentium*.

“He shall have of every such woman found within the franchise on holy days, after or before the hours allowed and limited in the customary, fourpence, which money the bailiff and constables are for to render and certify the steward in the court under the title of *Nummus receptus in curiâ*.”

Here follow the chief articles relating to the stews:—

“Art. 2.—Item, The women that be at common bordel, to be seen every day what they be, and a woman that liveth by her body to come and goe where she list.

“Art. 4.—Item, That no stewholder receive any religious nor any man’s wife, if it be known, but that they do the officers to unite thereof, or in default to pay four shillings.

“Art. 5.—Item, That if any woman come into the lordship, and would be kept private within, and it be not the stewholder’s wife, they shall do the officers for to unite upon the pain of forty shillings, and the same woman shall take and make a fine of twenty shillings, and be set thrice upon the *cokyng-stool*, and forfeit the lordship.

“Art. 7.—Item, If any woman of the bordel let any man of his way, but sit still at the door, and let them go or come and choose wider they wool, or if they draw any man by his gown, or by his hood, or by any oder thing, she shall make a fine to the lord of twenty shillings.

“Art. 8.—Item, That if there be any stewholder’s wife that draweth any man into her house without his will, her husband and she shall be amerced unto the lord in forty shillings.

“Art. 12.—Item, That there be no woman that liveth by her body hold any paramour against the use and custume of the manor; if she

so do, she shall be three weeks in the prison, and pay a fine of six shillings and eight-pence, and then be set upon the cokýng-stool and forswear the lordship.

“ Art. 20.—Item, That if any woman living by her body, take any moneys to lie with a man, and shall not lye with him till the morrow, she shall make a fine of six shillings and eight-pence.

“ Art. 23.—Item, That no stewholder, nor no tenant within the lordship, kepe any woman that liveth by her body, if she be known with child, after a reasonable warning, upon the payn of paying to the lord a fyne of twenty shillings, and the woman to pay six shillings and eight-pence.

“ Item, That no stewholder keep any woman within his house, that hath any sickness of burning, but that she be put out upon payn of making a fyne unto the lord of one hundred shillings.”

The above was abridged by Dr. Turner from an ancient manuscript, formerly the officer's book of the court leet within the manor of Southwark, under the jurisdiction of the Bishop of Winchester.

From a manuscript which Mr. Beckett obtained possession of in Lincoln College, Oxford, the following statement appears, made by Thomas Gascoigne, then Chancellor of Oxford:—

“ I, Thomas Gascoigne, an unworthy Doctor of Divinity, who wrote and collected these observations, have known several men who have died of a putrefaction of the genitals, and of the whole body, which corruption and putrefaction, as they said, was owing to carnal copulation. For that great English duke, *viz.*, John of Gaunt, died of putrefaction of this kind, occasioned by coition. For he was much

addicted to venery, as was well known all over England, and when he was upon his death-bed, he showed that mortification to King Richard II. This was communicated to me by an honest bachelor of divinity, who was the only person in the secret. Willis, likewise, a citizen of London, pretty far advanced in years, died of mortification of the same kind, occasioned by carnal copulation with women.”

This manuscript bears the date of 1430, more than half a century before its outbreak at Naples; and I think, from the infrequency of idiopathic ulceration of the genitals in our time, there can be very little doubt but that the disease here referred to is the venereal.

John of Gaddesden,* an English physician of Merton College in his *Rosa Anglica*, published in 1320, speaks of ulcers of the penis, excoriation, &c. arising from coition with a female having her catamenia on her, or from a retention of the urine or semen.

On the 6th of March, 1496, there was a decree issued in Paris, by which such as were affected with the venereal disease were compelled to withdraw themselves from society, on pain of death, and all non-residents in this city to depart within four and twenty hours after contracting the disease. For the inhabitants themselves houses were taken at St. Germain, and persons appointed to look after them, to which

* The first Englishman ever made physician to the King.

those afflicted were compelled to retire, and there remain until perfectly cured.

From the foregoing testimonies, which I have endeavoured to collect from the most authentic sources, and from many others at present in my possession, I think there can be little doubt but that the disease has existed from time immemorial, and will exist as long as man's passions are unrestrained by the influence of moral feelings. This disease is the boon awarded to those who yield to the gratification of one of the strongest passions implanted in the human breast, a passion which is frequently gratified before reason has assumed her command.

Of all the class of beings who suffer from this disease, perhaps there are none upon whom its ravages are more conspicuous than girls of the town; and although it is a disease not fatal in itself, yet, when once contracted, the shame and fear attending it are such, that many a young person is induced to conceal his situation, until it gains such a hold upon his constitution, that his days are for ever after spent in unavailing remorse, in bemoaning the follies of his youth.*

* Bacon somewhere observes, "that the follies of youth are so many conspiracies against old age."

In this manner numbers become victims of a misguided conscience, allowing their constitutions to be irretrievably injured before aware of the danger they have incurred.

But frequently the mischief does not stop here. Seeking the delights and happiness of a domestic life, with the hydra-headed monster still lurking in his constitution, assuming the most protean varieties of form, and at times lulling the anxious sufferer's fears by an assumed repose, the innocent offspring of his ill-timed alliance partake of his misery, and are punished for his follies; even the babe in the womb becomes tainted with the deadly venom,—wife and children all suffer for *his* vices;—and thus are the sins of the fathers visited upon the children.

At the present period no part of the known world is free from its contagion; rearing its ghastly head in all quarters, and attacking without discrimination all classes of society. Formerly loss of the hair, destruction of the nose, caries of the bones, and other hideous symptoms, were its frequent consequences; setting at defiance the power of every remedy then known, it was justly regarded as the terror and scourge of mankind, sent as a check to man's unruly passions. Of

late years, the disease has assumed a much milder form, and appears in some measure to be deprived of its original virulence; it is only in rare instances found in a violent form.

I do not think that this change is to be attributed to any spontaneous diminution in the malignancy of the disease, but that it is dependent upon the modifications it has received from the employment of proper remedies; and happily the prejudices which formerly prevailed respecting its incurable nature have long since been banished, and it is now universally conceded, that no disease is so immediately under the control of proper remedies, and none so simple in its treatment.

Bearing this in mind, those who run the risk of infection should resort to early treatment, not forgetting the maxim of Horace,

“ Stultorum incurata pudor malus ulcera celat.”

The description given of this disease by the early writers is most defective, inasmuch as they appear in many instances to overlook the primary sore, or speak of it only as shewing itself simultaneously with the secondary or constitutional symptoms. Aquilanus says, that it appears first about the genital organs,

though sometimes pustules first break out about the face or forehead, which discharge a whitish sanies.

Montesaurus says, that the pustules first affect the pudenda, but that he has frequently seen those diseases without any symptoms at all about the genital parts.

Hutten tells us, that the disease first makes its appearance with pains in the joints, "and yet nothing is to be seen; but afterwards a flux of humours falls down, occasioning a swelling, which beginning to harden about the part, a most vehement pain ariseth, which is the beginning of the distemper.

Nicholas Massa says, that hard prominent pustules, of a bad colour, break out over the whole head or the forehead; sometimes the disease begins with malignant, callous, obstinate ulcers upon the penis, and pustulés scattered on the pubes. To these succeed abscesses in the groin, which, if they suppurate, frequently remove the disease.

Fallopious, that the disease commences with a torpitude and drowsiness; to this succeed pains in the head, which shift into one shoulder, and from thence into one of the shins. A slight putrid ulcer appears in the pudenda; after that, buboes; and at last, a gonorrhea breaks out.

Leonicenus, on the contrary, affirms, that the pustules first shew themselves about the pudenda, and from thence spread all over the body. Torella was of the same opinion; as also John de Vigo, Coradinus Gilinus, Joannes Benedictus, Boerhaave, Astruc, Turner, &c., &c.

But the most regular description and order of symptoms that I have met with is given by Joannes Fernelius, of Amiens, in 1555, and Antonius Fracantianus in 1564: the former, physician to Henry II., of France; and the latter, professor of physic at Padua. They both agree that it is a local disease, situated at first about the genitals, followed by buboes, which if neglected, the poison is disseminated through the whole body. Fracantianus describes accurately the Hunterian chancre in these words:—"The ulcers are known to be of a venereal kind by their bloated condition, their *hard swollen lips*, and their inequality."

It is now generally acknowledged, by those who have had much experience in the treatment of these cases, that the character of sore here alluded to, with hard callous edges, is more frequently followed by secondary symptoms than any other.

The opportunities I have had of watching patients

affected with chancres of this description have led me to the belief, that it is only when they assume this character, we can with any certainty predict the appearance of constitutional symptoms. M. Ricord believes, that this callosity is a certain indication of an absorption of the virus into the system.

GONORRHŒA,

BLÉNORRHAGIA, OR GONORRHŒAL URETHRITIS.

From many observations made in the foregoing passages, we have every reason to believe that gonorrhœa was coeval with syphilitic chancre, and is not of more recent origin, as assumed by some. The running issue and seed of copulation already referred to in the fifteenth chapter of Leviticus, I think there can be but little doubt, bears a close resemblance to gonorrhœa.

The term *gonorrhœa*, as applied to this disease, means strictly a discharge of semen; and all the earlier writers on this complaint speak of it as a running of *purulent* semen. The cleanliness so strictly enforced by Moses, and so readily resorted to, doubtless tended in a great measure to check its virulence, and prevent its spreading. That the uncleanness spoken of, if arising from an infirmity, should

have been regarded as heinous in the eyes of the Almighty, is contrary to the attributes of his divine wisdom; and I am disposed to think, from the manner in which the cleansing was consummated, that the disease was contracted by man's inadvertency, and was no other than common gonorrhœa. Thus, in the 14th verse—

“ And on the eighth day he shall take to him two turtle-doves or two young pigeons, and come before the Lord unto the door of the tabernacle of the congregation, and give them unto the priest.

“ 15. And the priest shall offer them, the one for a sin-offering, and the other for a burnt-offering; and the priest shall make an atonement for him before the Lord, for his issue.

That the mere act of separating the children of Israel seven days, and employing ablution, should cure them of seminal weakness, is not at all probable; but that the caution recommended by Moses, and adopted soon after suspicious intercourse, is of service in checking gonorrhœa, we have incontestible evidence. And again, that this uncleanness was a disease not likely to undergo a spontaneous cure, but required the application of remedial agents, we learn in the 31st verse.

“ Thus shall ye separate the children of Israel from their uncleanness, that they die not in their uncleanness.”

On referring to many authors who lived in the thirteenth century, I find frequent allusions made to imposthumes of the groin, arising from foulness of the penis, which, on account of its many plicatures and the straitness of the passage, nature could not cleanse, in consequence of which it regurgitated upon the groin. Buboës, at the present period, arising from gonorrhœal irritation, are not at all uncommon; and I am inclined to think that the imposthumes here alluded to derived their origin from the same source, a free egress of the matter being prevented from a long prepuce covering the glans.

In the 30th and 31st volumes of the Philosophical Transactions, published in 1718, are three dissertations by Mr. W. Beckett, wherein he proves that gonorrhœa was known in England some ages prior to the appearance of syphilis in 1494. His earliest authority is John Ardern, who, in a manuscript which Mr. Beckett obtained possession of, speaks of a brenning or burning, and defines it to be an inward heat and excoriation of the urethra, for which he recommends the milk of a woman suckling, sugar, the oil of violets, ptisan, and a little almond emulsion, to be mixed together, and injected with a syringe. He

quotes also as an authority John Bale, who, in speaking of Dr. Weston (who was dean of Windsor in 1556, but deprived by Cardinal Pool for adultery), calls him "lecherous Weston, who is more practised in the art of breech-burning than all the whores of the stews; he not long ago brent a beggar in St. Botolph's parish."

From the posthumous works of Gabriel Fallopius, who lived in the fifteenth century, we learn, that gonorrhœa did not show itself until thirty years after the venereal disease made its appearance at Naples; for, after describing the symptoms of syphilis, he says, "A slight putrid ulcer appears in the pudenda, and after that, buboes appear in the groin; at last, a gonorrhœa breaks out, which is a new symptom, and did not appear until within these fifteen years."

Fracantianus says, that he knew a girl of seven years old who caught the venereal disease by putting on the leathern bodice of an infected woman; and that it frequently commences with a gonorrhœa, and which is known to be of a virulent kind by the livid colour of the matter.

Sydenham, who in 1680 wrote his epistle "*De Luis Venereæ Historiâ et Curatione*," tells us, that the

venereal disease was known a hundred years before in the form of a virulent gonorrhœa; and he regarded the latter merely as a critical discharge designed by nature to drain the system of the venereal virus. This we learn from the following passage:—

“Europæo nostro non perinde lætatur sed languet in dies, et mitioribus phenomenis fatiscit, at vero centum retrò annis gonorrhœa virulentâ specie se primum ostendebat, ostenditque adhuc, hâc sibi portâ exitum quærens, cujus virus cum per gonorrhœam non ejiciatur sanguinis massam citius pervadit, inficitque,” &c.

Boerhaave was of the same opinion as to the critical nature of the discharge in gonorrhœa, and believed that too hastily checking the flow of matter would produce confirmed syphilis, and that in a very short time. “Est cæteroquin hæc gonorrhœa levissimum symptoma venerii contagii suscepti, et quasi majorum malorum asylum, ei enim qui acri gonorrhœâ laborant in luem veneream incidunt.”

Astruc tells us, that a gonorrhœa never produces syphilis if the vitiated semen have a free and plentiful discharge, because the infectious matter runs off; but that if a running be stopped, then the blood partakes of the infection, and syphilis is the consequence.

Dr. Maynwaringe, who published his "History and Mystery of the Venereal Lues," says, that the venereal lues was as easily known to an expert physician by a gonorrhœa, pains, pustules, &c., as a fever is known by preternatural heat and burning; and further on he says, "The infancy of this disease (if taken by copulation) presents to you only a sharp hot urine, and some difficulty in making water, or some gleety seminal excretion, which continuing to discharge the virulency, keeps off the rest of its fellows from appearing upon the stage," &c. &c.

Dr. Turner speaks of gonorrhœa as the first indication of venereal infection, which is succeeded by ulcers; these ulcers, beginning to turn callous, form into what the surgeons term chancres. He divides the symptoms of syphilis into the first and second infection: the first includes the local, and the second the constitutional symptoms.

Mr. John Douglas, in his dissertation published in 1737, says, "The first natural symptoms of the distemper is a discharge of whitish, yellow, or greenish matter from the urethra of men, and the vagina of women, which appears first on their linen. A smarting, sharp, and pricking pain in making water."

Dr. Beckett, who published an essay on the venereal disease in 1765, says, "The venereal poison fixing on the ducts of the urethral glands is the immediate cause of that disorder called gonorrhœa, or clap; the stimulating corrosive salts of which poison galling and fretting those and the nervous parts, excite heat of urine and a chordee, the almost inseparable symptom of this disease. But nature, ever intent on removing from her the cause of pain and disturbance, sends a flux of humours to those parts to disengage them from the acrimony of the virus, and wash it away, and drain it off through the urethra; and therefore the running produced from this flux of humours must be looked on as a critical discharge."

Up to the time of Hunter the prevailing opinion was, that gonorrhœa and syphilis arose from the same specific contagion, and that either might result from an application of the same poison—the character of the disease varying only in consequence of its attacking different surfaces. But it is now pretty generally conceded, that this opinion was founded on the most erroneous principle, and that many of the cases brought forward in support of it were cases in which both the nature and seat of the disease were over-

looked. It was not then known that chancres sometimes attacked the lining membrane of the urethra, and consequently that constitutional symptoms would as likely ensue from chancres of this description as any other. In the course of my practice I have met with two or three cases of this description, in which I was led at first to adopt the usual remedies for gonorrhœa, but on a more careful inspection of the disease I discovered as confirmed a chancre as ever existed on any part of the penis, exhibiting all the characters of a true Hunterian sore. Each of the cases were followed by secondary symptoms, and one of the gentlemen is at present under my care, with ulcerated sore throat.

It is most important that the distinction between the two diseases should be generally understood, and the experiments recently instituted by M. Ricord (of which we shall speak hereafter) appear to have brought this long-disputed subject to a close.

This opinion of the character of the two diseases led many of the earlier writers to commit the most egregious blunders in their treatment of gonorrhœa, as the remedies adopted in syphilis were deemed applicable to gonorrhœa.

Dr. Astruc, instead of adopting the usual mode of purging &c. recommended at that time, employed preparations of mercury, and recommends, every second or third day, from one to two drachms of mercurial ointment to be rubbed in, and continued until the gonorrhœa has disappeared.

Mr. Hunter, although a strong advocate for the identity of the poison of gonorrhœa and syphilis, nevertheless doubts the efficacy of mercury in the former disease, and believes that gonorrhœa would be much sooner cured without it than with it. He says, "So little effect, indeed, has this medicine upon a gonorrhœa, that I have known a gonorrhœa take place while under a course of mercury sufficient for the cure of a chancre. Men also have been known to contract a gonorrhœa when loaded with mercury for the cure of lues venerea."

It is strange that for so many years such diversity of opinion should have existed respecting the pathological state of the urethra in gonorrhœa. It was the opinion of Hunter, Astruc, and all the earlier writers on this complaint, that ulceration of the urethra was a necessary concomitant; but in the year 1753 this opinion underwent a radical change, and

that in consequence of some observations made by Mr. Hunter on the bodies of two criminals who were executed whilst labouring under this disease, and in whom no trace of ulceration could be found, but merely inflammation of the mucous membrane. Mr. Hunter states, that he has met with an instance of a sore a little within the urethra, but that he did not believe it to have been produced by any ulceration of the surface, but from suppuration of one of the glands.

These opinions coming from such an authority as Mr. Hunter, gained ground, and were generally received as infallible, until Mr. Benjamin Bell, of Edinburgh, published his valuable work on the venereal disease, impugning these statements, and supporting a contrary opinion. He brought forward the question, "Whether gonorrhœa and lues venerea originated from the same contagion?"

For the information of my readers, I have abbreviated the arguments of these two great men in support of their favourite opinions, and placed them in juxtaposition with each other. To those who are more interested on this subject, I would recommend a perusal of the works themselves.

MR. HUNTER.

“ If any doubt still remain with respect to the two diseases being of the same nature, it will be removed by considering, that the matter produced is of the same kind, and has the same properties ; the proofs of which are, that the matter of a gonorrhœa will produce a chancre or lues venerea ; and the matter of chancre will always produce either a gonorrhœa, a chancre, or lues venerea.”

“ To account for these two different effects of the same poison, it is only to observe the difference in the mode of action of the parts affected when irritated, let the irritation be what it may. The gonorrhœa always proceeds from a secreting surface, and the chan-

MR. BELL.

“ In order to support this opinion, we must admit that a person with chancres only communicates to another not only every symptom of pox, but of gonorrhœa ; and that another with gonorrhœa only gives to all with whom he may have been connected chancres with their various consequences. This ought indeed to be a very common occurrence ; instead of which it will be admitted by all, that the one disease being produced by the other is even in appearance a very rare occurrence. I have paid much attention to the point in question, and in almost every instance and where the most particular inquiries were made, it has happened that every person infected with gonorrhœa has received it from another labouring under that disease, and that chancres have been communicated by such as were distressed with chancres only.”

“ In the first place, on the supposition of the matter of gonorrhœa and lues venerea being the same, the latter ought to be a much more frequent occurrence than the former, from the greater ease with which the matter of infection must in every instance be applied

cre is formed on a non-secreting surface ; and in this last the part to which the poison is applied must become a secreting surface before it can be produced."

to those parts on which it can produce chancres than to the urethra. Cases of gonorrhœa are in proportion to those of chancre and pox, so far as my observation goes, of about three to one ; while it is obvious that the very reverse should happen, if the two diseases were produced by the same kind of matter."

It would be an act of supererogation, after quoting the above authorities, to thrust forward any opinions of my own upon this subject ; but I would merely remark, *en passant*, that it has always appeared to me most strange, that Mr. Hunter, who was so close an observer of nature, and a man of such profound thought and reflection, should have been led to adopt such strange notions respecting the pathological identity of these two disorders. Being naturally disposed to adopt Mr. Hunter's views, from the great respect which every one must entertain for his writings, and his laborious pursuits in the field of medical literature, I was anxious, as far as my experience would allow me, to investigate this subject ; and, by a close attention to cases, I have never yet met with secondary symptoms arising from gonorrhœal discharge. It is true, both diseases are contracted in a similar manner ;

and both, in the true acceptation of the term, may be regarded as venereal; but then the symptoms attending each are widely different, one being a disease attacking the various tissues of the body, whilst the other confines itself chiefly to the mucous surfaces.

Were this identity of the two diseases established, we ought, as a necessary corollary, to expect that chancre would be the most frequent disease of the two; but this even the experience of Mr. Hunter disallows, who states the proportion to be about four or five of gonorrhœa to one of chancre.

The *modus operandi* of the gonorrhœal virus is to excite inflammation of the urethral passage. At the time of intercourse with a gonorrhœal female, the whole body of the glans must become moistened with the poisonous fluid, and yet it shall not exhibit any trace of disease.

From the difficulty which the contracted orifice must present to a free admission of this fluid into the urethra, I think there can be little doubt but that nine cases of gonorrhœa out of ten arise from irritation commencing around the lips of the meatus, and gradually creeping along the mucous membrane, the matter never having gained admittance into the urethral passage.

In consonance with Mr. Hunter's views, we ought moreover to expect, that the frequent excoriations attending gonorrhœa should degenerate into chancres of a most violent form, from being constantly imbued with the discharge; but this is never the case.

Pythagoras, when asked in what we most resembled the immortal gods, replied, "In doing good, and speaking the truth." How applicable is this remark here, and how necessary is it, that every one investigating a matter of importance like the present should divest themselves of all prejudices arising from favourite theories, and advance their opinions with that exactness which is due to truth, and that decision which experience alone can confer, and which alone can be serviceable to mankind.

The conflicting opinions which have been advanced on this subject have arisen, no doubt, from placing too much confidence in the testimony of patients themselves. We shall rarely find a person over-garrulous respecting the manner in which he contracted the disease, or the number of times he has yielded himself up to the pleasures of Venus with different females. The contumely attached to such conduct induces many a person to keep a silent tongue, or to assert that which excites the least appearance of shame; and thus

it is, that medical men are too frequently imposed upon, and, reasoning on false premises, are led to form erroneous conclusions.

The cases of gonorrhœa in which secondary symptoms supervene are cases, no doubt, in which chancres co-exist within the meatus, and which, considering their privacy, are frequently overlooked. These sores the French surgeons have very appropriately named *chancres larvés*.

The experiments which M. Ricord has recently instituted on this subject, have exposed the fallacy of Mr. Hunter's views, and established beyond a doubt, that gonorrhœa and syphilis are the effects of two poisons whose properties and qualities bear no resemblance to each other, and that *cæteris paribus* the poison of gonorrhœa is as distinct from chancre, as is the poison of cow-pox from that of variola.

These experiments have been too numerous to leave any doubt as to the validity of M. Ricord's statements. I shall content myself with selecting one or two of them, which will serve the purpose of elucidating the subject, and showing the manner in which those experiments were conducted. The following are selected from Drummond's translation of Ricord:—

CASE.—*Chancre and gonorrhœa: the inoculation of the chancre productive; that of gonorrhœa negative.*

Conr——, Claude, aged 26, entered June 19, 1835. In this patient the gonorrhœa made its appearance three days after suspicious connection; two days later, chancres appeared at the base of the glans. The gonorrhœa was very painful, and the discharge very copious at the commencement. The matter flowing from the urethra was still bloody; but the patient did not suffer in passing his water. The chancres were still at the period of ulceration; the chancre pus was inoculated on the right thigh, and that of gonorrhœa on the left.

July 2d. The puncture on the right thigh had produced the characteristic pustule; that on the left was cicatrized. These results were shown in the clinic held in the amphitheatre of the Ecole de Médecine, and then cauterized with the nitrate of silver. The gonorrhœa was treated with injection of acetate of lead and copaiva; the chancres, by cauterization and aromatic wine. The patient was dismissed cured, July 18th.

CASE.—*Chancres and acute gonorrhœa, contracted in a single coition: inoculation yielding a result positive for the pus of the chancre, and negative for that of gonorrhœa.*

Cor——, Edward, aged 21, entered June 20, 1835. The commencement of this disease was six weeks previous. The day after connection chancres appeared on the frænum and prepuce; two days later, an acute gonorrhœa declared itself, and occasioned much pain.

The chancres had been treated with precipitate dressings of ung. mer.; further, he had been cauterized with arg. nit., and had taken sixty mercurial pills from another hospital.

The chancres were still in the period of increase; the gonorrhœa afforded a greenish and bloody matter. The chancre was inoculated with two punctures on the right thigh, and the gonorrhœal pus on the

left. The chancres were cauterized with argent. nit., and dressed with vin. arom.; and an injection of acet. plumb. was ordered.

June 24th. The two punctures made with the pus of the chancre had produced the characteristic pustule. The upper was cauterized, and the other allowed to develop itself. The punctures made with the pus of the gonorrhœa had produced nothing. The same treatment was continued. The gonorrhœal pus was again inoculated.

28th. The inoculation made on the 24th with the gonorrhœal pus had produced nothing. The chancres were in the stage of reparation: the gonorrhœa discharged a little whitish matter. The inoculated pustule which had been allowed to remain had produced a chancre on the thigh; it was cauterized, and dressed with vin. arom.

July 14th. The gonorrhœa had disappeared, under the treatment with injections, and copaiva with magnesia in the form of a bolus; the chancres were cicatrized.

July 18th. Dismissed cured.

CASE.—*Chancre larvé, with symptomatic bubo: inoculation producing positive results in each case.*

Dum——, aged 26, entered Nov. 11, 1835. Was not able to fix accurately the time of the commencement of his complaint. He stated, that he had six weeks previously felt a slight pain at the meatus urinarius when he passed his water, but paid little attention to it till a fortnight previous to his entry, when a bubo appeared on the right side. Its course was very acute, but the patient had not undergone any treatment. Upon his entry into the hospital, some induration was perceived at the meatus urinarius, and towards the fossa navicularis. Upon separating the edges of the aperture, no ulceration was perceived; upon pressure, a little pus came; the canal of the urethra appeared sound beyond the above-mentioned point. The patient never at any time perceived a gonorrhœal discharge. The only pains he felt were at the meatus urinarius, and in the fossa navicularis. The

bubo was extensively suppurated ; it was opened, and a large quantity of reddish pus was discharged.

Nov. 23d. The pus from the meatus urinarius was inoculated on the right thigh, and the pus of the bubo on the left. The lips of the incision made on the bubo were ulcerated. The bubo was cauterized with nit. argent.; some threads of lint covered with calomel and opium cerate were introduced into the canal; cataplasms were applied to the groin.

28th. The inoculated punctures had taken, and produced the pustules ; they were allowed to take their course. Near the frænum a small hardened tumour was perceived. The same dressings were continued.

Dec. 1. The chancres of the thighs from inoculation of the pus from the urethra, and from the bubo, were cauterized with argent. nit., and dressed with calomel and opium cerate.

12. A small abscess, the consequence of the suppuration of the tumour perceived on the 28th ultimo, was opened, and the pus inoculated by a puncture on the right thigh.

17. The inoculated puncture made with the pus of the chancrous abscess opened on the 12th, had produced the characteristic pustule.

20. The pustule from inoculation, which broke the day previous, was inoculated. Little induration remained at the meatus urinarius. The bubo was better ; it was cauterized with nit. argent.

27. Altogether better. The chancres on the thighs were nearly healed under the influence of the cauterizations and dressings with calomel and opium cerate.

30. The patient being cured was dismissed.

CASE 20.—*Gonorrhœa, chancre larvé: a positive result from inoculation during the period of ulceration, and negative during that of reparation.*

Br —, aged 19, entered March 9th, 1833. Three days after a suspicious connexion, the patient perceived a discharge of some pus

from the urethra, and the secretion gradually increased. He had acute pain on passing his water, irritation of the glans, and phymosis; which, however, allowed of the organ being two-thirds uncovered, when a slight redness was perceived on it, but no excoriation.

March 11. The pus of the gonorrhœa was inoculated upon the right thigh by three punctures. The pil. opii c. camph. were ordered, and emollient lotions.

15th. The inoculation had produced the pustule, but it was not much developed. The gonorrhœal pus was again inoculated on the left thigh.

17th. The pustules, both right and left, had furnished the pathognomic character. On the right thigh the first inoculation had produced chancres with abrupt edges, which had pierced the whole thickness of the skin. Upon pressing the canal near the fossa navicularis, an induration was perceived, indicating the seat of a chancre. The treatment was continued.

22d. The appearance of two buboes was perceived, and leeches were applied to each tumour. Two days previous the patient had chafed himself near the frænum, and the pus from the urethra had inoculated the wound, and caused a severe irritation. The prepuce became œdematous, and a phymosis ensued. The chancres on the thighs were dressed with cerat. opii.

17th. Pills of hydrarg. iodid. were ordered, to combat the induration, and injections of acet. plumbi for the gonorrhœa.

April 6th. The chancre inoculated on the chafed part had nearly destroyed the frænum. The discharge was much diminished, and the matter had lost its greenish colour.

10th. The patient complained of soreness of the gums: the mouth was irritated, but there was no salivation. The gums were touched with the acid. hydrochloric. as a prophylactic. The mucous pus of the urethra was inserted by three punctures on the left thigh, below the second inoculation, which was cicatrizing.

18th. The puncture had produced nothing; there was less induration in the fossa navicularis, and the urethral chancre was found to be arrived at the period of reparation.

May 1st. The chancres on the thighs were nearly healed, and little discharge remained.

3d. There was no more induration; the chancre of the frænum was healed. The pills were omitted; and the patient left the hospital on the 14th.

Upon whatever mucous surface of the body the gonorrhœal virus is applied, its immediate effect is inflammation of that surface, of a specific character, attended with an augmented and vitiated secretion from the part so affected, possessing all the properties of the original virus, and capable of propagating a similar disease.

As this character of inflammation is most frequently induced from connection with an infected person, we look to the mucous membrane lining the urethral passage as its most common seat, although the mouth, nose, eyes, &c. are susceptible of receiving the same contagion, should the matter be inadvertently applied to those parts.

The poison undergoing no decomposition from its escape out of the body, loses none of its primeval characters, but is as capable of propagating the disease as before; and thus it not unfrequently happens, in

large establishments, and where proper caution is not observed, the disease may be indirectly passed from one to the other, either by visiting the same water-closet, wearing the same apparel, or employing the same towels.

The infection of gonorrhœa can only be received by a healthy surface: when applied to a surface already diseased, it does not alter the character of the original infection, neither rendering it more virulent, nor protracting it in its duration.

When applied to a surface unaccustomed to its irritating properties, its effects are more severe than otherwise; and hence it is, that first claps frequently prove most troublesome in their treatment, the inflammation being more violent. Something is due also to the state of the constitution at the time of receiving the contagion; a person taking a gonorrhœa whilst under the influence of stimulating drinks is likely to suffer more than one who has taken it whilst sober.

It is important to know, that all discharges from the genital organs are not necessarily of a venereal character, and that we shall sometimes meet with cases in which the reputation of individuals depends solely on the diagnosis we arrive at. The consequences ensuing

from inattention to this are most serious, and require us to be circumspect and cautious in advancing opinions which are likely to involve the safety and happiness of our patients.

Persons of an arthritic tendency are sometimes liable to symptoms resembling gonorrhœa prior to an attack of gout; and Mr. Hunter has known the urethra to sympathize with the cutting of a tooth.*

Children are very liable to spurious discharges of this kind, arising from intestinal irritation. These cases naturally excite a great deal of alarm, and I have been frequently called on to quell the anxious doubts with which parents were disturbed by these untoward appearances.

A disease to which women are frequently liable is leucorrhœa, commonly called whites; one variety of which bears the strongest similitude to gonorrhœa, has all its symptoms, and requires very nearly the same treatment. This discharge is so acrimonious and irritating, that it excoriates not only the patient herself, but, if married, her husband comes in for a share of the complaint. The older writers on gonorrhœa were aware of this, and of the importance attached to a

* Vide Nat. Hist. of Teeth, part ii., p. 127.

correct diagnosis. The following cases will serve to illustrate this matter:—

Mr. — applied to me for inflammation of the urethra, attended with great pain in passing water. These appearances caused him great uneasiness and anxiety, as they had come on subsequently to connection with a lady to whom he was much attached, and who he believed was the same to him. I told him to banish all suspicion, and make his mind perfectly easy, as there was not the slightest cause for doubting the constancy of his “ladye love;” at the same time I requested him to make inquiries respecting the state of her general health, and whether or not she was affected with any weakness at the time of connection. The following day he called, with a smiling face, to inform me, that my surmises were correct, and that his *chère amie* had for a long time been troubled with leucorrhœa, but, having been accustomed to suffer from habitual weakness, she had not thought it sufficiently important to notice. The few simple remedies of saline aperients and Goulard lotion removed the complaint.

I am accustomed to attend a gentleman and his wife who, immediately they have connection, affect each other with this spurious sort of gonorrhœa, and the

husband has declared to me, that he has never anything of the kind after connection with other females.

A friend of mine contracts a running of the same kind whenever his lady becomes *enceinte*, and he looks upon this as an infallible evidence of such an event.

Discharges of a similar nature occur in married men, who, having drank freely for some days, acquire a sort of artificial incentive for indulging in connubial excesses. Such was the case with a commercial gentleman, who on his journey indulged most liberally in stimulating drinks. On returning to his wife after three weeks absence, his social desires were so strong, as to require the most frequent gratification. A day or two subsequently he applied to me with a most severe inflammation of the whole glans and prepuce, attended with a yellow mattery discharge from the urethra—in fact, having all the symptoms of a severe clap. He declared to me most solemnly that he had never been unfaithful to his marriage vow, and that his wife exhibited no trace of the same disease. I readily believed him, as, being a stranger, he could have had no motive in deceiving me. I ordered a few saline aperients, and a Goulard lotion to be kept con-

stantly to the penis, and in a few days all the symptoms had disappeared.

It is impossible to lay down any definite period at which gonorrhœa makes its appearance after receiving the contagion; this depends upon the state of the constitution at the time of connection. Sometimes it commences within a few hours, at other times a few days; and in other cases, again, some weeks will elapse.

Astruc limits it to four, eight, or twelve days after commerce with an infected woman.

Mr. Hunter met with cases in which it commenced the morning after; and in one of his patients six weeks passed before any symptoms of the disease appeared.

Sir Astley Cooper stated the usual limits to be from four to seven days, but that he had known it to occur within four-and-twenty hours after connection. Sometimes a fortnight, or a longer time, will elapse. Sir Astley related an instance in which it was delayed fourteen weeks.

When gonorrhœa has commenced, it may be checked by any sudden indisposition of the patient: thus, a fever has been known to suspend its action; and inflammation of the testicles, it is well known, removes

the discharge, but it again returns when the inflammation has subsided.

The symptoms of gonorrhœa are not uniformly the same in all individuals. Thus, two men having connection with the same female, both may have the disease, but one more severe than the other. This peculiarity does not depend upon any variation in the severity of the fluid itself, but upon the constitution of the individual receiving the contagion. The discharge from a mild clap will produce all the symptoms of a violent one; and *vice versâ*.

CASE.—A gentleman applied to me with gonorrhœa, arising after connexion with a female who regularly cohabited with a friend of his. The symptoms were most marked, and went through their regular stages; yet the friend, who has cohabited with the same female up to the present period, has had no appearance of discharge, nor anything approaching to gonorrhœa. This peculiarity can be accounted for only on the supposition that a gonorrhœa had existed some time previously in the female, which had become so modified as to have little or no effect upon the gentleman habituated to the secretion, his constitution being good; but immediately a stranger had connexion

with her, whose constitution was unhealthy at the time, and who was unaccustomed to the discharge, he contracted the disease.

People of fair complexion, and who exhibit traces of a strumous taint, are more obnoxious to gonorrhœa than others. With these the disease will spin itself out to a considerable length of time, contumaciously resisting all attempts at cure, and proving most annoying both to the patient and surgeon. With those who have long foreskins the disease is also troublesome, from the discharge being kept in continual contact with the inflamed glans.

A large urethral orifice renders a man more prone to this disease than he otherwise would be, from the facility with which a direct application of the gonorrhœal virus can be made to the mucous lining of the meatus.*

As Sir Astley Cooper observed, when an elderly person contracts a gonorrhœa, he rarely escapes without having reason to repent his folly. The inflammation creeps on surreptitiously until it reaches the prostate gland, occasioning chronic enlargement. The bladder

* This was observed by Botallus in 1555.

becomes affected, and the patient is tortured with a frequent desire to pass his water, and chronic inflammation with its miserable attendants follow.

Medical men are frequently consulted as to the precise period at which the gonorrhœal discharge ceases to be infectious. This is a very important question, and yet it is a subject on which a great discrepancy of opinion prevails.

As far as my own opinion is concerned, I should decidedly prohibit sexual intercourse as long as any trace of the disease remains. Sir Astley Cooper doubted if gonorrhœa ever loses its infection as long as any discharge from the urethra remains; and he mentioned an unfortunate case which happened to him in practice from acting on a contrary opinion. A gentleman, after having had a gleety discharge upon him for five months, by his recommendation returned to his wife's bed, and gave her a most severe clap.

Mr. Hunter was of the same opinion, but believed that two persons who were habituated to the secretion might cohabit together with impunity.

A case is related of a young female who had gonorrhœa at the time of admission into the Magdalen Hospital, where she remained twelve months. On

the night of her discharge she slept with a gentleman, to whom she communicated the disease.

One peculiarity in the properties of gonorrhœa is, that it can be propagated only by the matter secreted. Thus, a gentleman may have commerce with an infected female and contract the disease, and yet may with safety have intercourse with another female, provided the discharge has not yet made its appearance, and he has been careful to employ proper ablution. According to Mr. Hunter, husbands may in this way cohabit with their wives without infecting them, in order to save appearances;—a dangerous experiment; and highly culpable in any one who would run so serious a risk.

Dr. Titley, in his work on diseases of the genito-urinary apparatus, relates two cases in which this experiment was tried with impunity.

The first occurred with a gentleman who, before intercourse with a kept woman, whilst labouring under gonorrhœa, took the precaution of passing his urine, and freely injecting the passage with a solution of the sulphate of zinc (a scruple to six ounces of water). By these means the lady enjoyed an immunity from the disease.

The second occurred with a married man, who, being desirous of avoiding suspicion, had frequent intercourse with his wife, after observing the same precaution, without transmitting the disease.

M. Deconde, a surgeon in the Belgian army, has recently instituted some experiments to prove, that irritating injections of nitrate of silver, when thrown into the urethra, have the power of so modifying the fluid secreted by the inflamed urethra as to render it no longer contagious, if collected immediately after the injection, and that the fluid does not again regain its virulent character, except in those cases in which the injection has been discontinued. He states, that he put with impunity into his urethra, and on the inner surface of his eyelids, gonorrhœal matter, on the same day that he had employed irritating injections, and the only feeling it produced was a momentary sensation of pricking, which soon disappeared. He tried the same experiment on the conjunctiva of animals with the like results. He has also endeavoured to prove that chlorine and the chlorurets have the power of destroying the virulence of the gonorrhœal and ophthalmic mucous.

He moreover determined, from experiments practised

upon himself, that this neutralization was permanent, and that the chloride of lime, by entering into a new combination with the discharge, destroys its infecting qualities, even when the mixture emitted no sensible quantity of chlorine.*

From these facts he was led to infer, that a lotion composed of one ounce of liquid chloride of lime, and one drachm of oxide of iron, diluted with a small quantity of water, would prevent the development of gonorrhœa, if resorted to immediately after impure connection. Should these experiments be sound, none in relation to this disease are fraught with greater importance, and none require greater publicity; for, by a steady adherence to these principles, we shall have a sure and safe remedy against this unpleasant and frequently obstinate disease; and who knows but that time might so modify the gonorrhœal virus, and so change the primogenial arrangement of its elements, as to render it comparatively innocuous.

The serious and manifest injury which must result from a non-fulfilment of these indications should make us wary in recommending such an expedient to married men. The reports of these experiments have

* Vide Medical Gazette, 1841-42, vol. i., p. 364.

not been sufficiently numerous to establish a feeling of indemnity against this disease.

Were it in my province here to deliver a lecture upon ethics, I would persuade married men to be content with the charms they already possess, and not be led, by the allurements of a transient passion, to incur so serious a risk.

Every man sets up in his mind his own standard of beauty, and the qualifications of that being whom he would desire to make the whole and sole partner of his happiness and cares; and, by a wise ordination of Providence, there is nothing in social life on which such a diversity of tastes prevail.

The lover feels that the charms of *his* mistress are transcendant, and can be surpassed by none: she lives in his memory, a creature of his imagination; she neither speaks, thinks, nor acts like any other being; whilst he, the Adonis of her heart, is a paragon of excellence and perfection.

It has been remarked by a recent writer,* that "love does not depend upon abstract beauty, but on such differences as are consistent with an instinctive feeling of suitableness." The beneficial tendency of

* Walker, on Intermarriage.

this law is evident, as it leads to the most perfect harmony in social life; and it is no doubt intended as a check to man's carnal appetite, directing his desires for the reproduction of his species into a proper and suitable channel.

The great end of man's existence is the propagation of his species, for the attainment of which nature has implanted in the human breast a feeling of love and affection towards the opposite sex. This, being the groundwork of every noble sentiment, ought to be regarded as an invaluable boon, and undergo such a system of moral training, as shall render its superstructure an edifice of beauty, and a model of human excellence.

Men, as "lords of the creation," act upon this feeling in its most abstract sense, and assume a much greater licence than was originally designed. Such an application is intended to characterize as near as possible the perfection of human nature, throwing its frailties into the opposing scale, and embodies in its substance sentiments the most noble and generous.

Of all beings men are naturally the most selfish. The feeling of love is based on self; yet these feelings, with certain modifications, are made subservient to the

wisest purposes, and work together for the general good. Such is the state of society at the present day, and so stringent are the laws which regulate its movements, that the weaker sex alone suffer for man's depraved desires, and are rejected as unfit for its future protection, whilst man, "*noble-minded man*," heedless of his victim's misery, revels undisturbed within the pale of its protective power.

Let it not be supposed that I would wish so far to unhinge the existing state of society as to select for its sympathy females of an unfortunate class. Such is not the case; but the laws which are so stringent over the one class should be made equally binding on the other, without any distinction of person or position. Were such the case, its beneficial tendency would soon become apparent, as men's passions would receive a check from the obloquy which a salacious indulgence would necessarily entail upon them.

With regard to that unfortunate class of females who nightly throng our theatres, and are to be met with in every leading street and avenue of this great metropolis, I would merely restrict them to certain localities, feeling that the venial indulgences of youth

have a less demoralizing tendency than the obtrusion of *undue* restraint.

But, to return from this digression:—To prevent disease is better than to cure; and much may be done towards lessening the evils of this baneful malady, if proper attention be paid to cleanliness. A great deal has been said in favour of washes having a specific controul over the disease. As far back as the time of Gabriel Fallopius, certain lotions were recommended as preventatives after suspected coition.

“Cleanliness is next to godliness;” and it should be enforced upon the minds of all, that a most important step towards preventing infection is an early application of soap and water.

Divesting them of their religious rites, the purifications enjoined by Moses were most important, inasmuch as they tended to check the progress of this disease amongst the children of Israel, who being “given up to their lusts,” were no doubt obnoxious to this infection.

When gonorrhœa has once set in, there can be little difficulty in forming a diagnosis. The only diseases with which it may be confounded have been already enumerated, and proper attention to the history of

these cases will enable us to give them the classification required.

In common cases, the inflammation of gonorrhœa does not extend further than an inch and a half to two inches down the urethra. This was called by Mr. Hunter its specific extent;* but where there exists any uncommon mode of action, the disease will sometimes extend over the bulb of the urethra, and to the mucous membrane lining the bladder.

Mr. Taylor, surgeon, of Fleet Street, has mentioned to me one or two curious instances, showing the extent to which gonorrhœal inflammation will sometimes spread in females, and the surreptitious manner in which it passes from one membrane to another, producing inflammation of the uterine appendages, and ultimately affecting the whole of the peritonæum.

This opinion accords with Mr. Bell's experience, who states, that he has met with cases in which the kidneys, uterus, and ovaries were so much inflamed as to require the most active depleting measures before relief was obtained.

A case of a similar description came under my

* It was the opinion of Mr. Hunter, that all diseases arising from morbid poisons have their specific distance as one of their properties,

notice about two months since, of a Mrs. B., who contracted both gonorrhœa and chancre from her husband. I attended both during their illness. The wife got rid of her running; but she was attacked within a week or so after with peritonitis, of which she died. On examining the body after death, in the presence of my friends Messrs. White and Clark, the following appearances presented themselves:—

Abdomen only examined. The abdomen exhibited traces of peritoneal inflammation, particularly that portion of it covering the uterus. Great effusion of fluid into the cavity of the peritonæum, of a dirty, muddy character. On examining the rectum, it was discovered to have suffered from scirrhus disease, which was attended with considerable narrowing of its natural diameter. A large clot of blood, about the size of a doubled fist, was found in the folds of the left broad ligament: in appearance it much resembled the placenta. Both ovaries were diseased, assuming the same scirrhus character as the rectum. The bladder and rest of the abdominal viscera were perfectly healthy.

At the time of death she was under my care with syphilitic ulceration about the mouth and fauces,

and had undergone mild courses of mercury for its cure.*

I am disposed to think, that the delicate epithelium covering the mucous lining of the urethra is not unfrequently eroded in gonorrhœa, and for the following reasons:—

1. Because it is not at all an uncommon occurrence to meet with erosions of the delicate skin covering the glans and prepuce in gonorrhœal patients. These parts often appear quite raw, and look as if they had been scalded, the skin readily peeling off.

2. Patients, for months after every appearance of discharge has ceased, will at times complain of a soreness in some situations of the urethra after passing water, and they describe it as if the parts were perfectly raw. This cannot depend on simple chronic inflammation, nor upon suppuration of any of the lacunæ, as the fixed character of the pain, and absence of all discharge, are opposed to such an opinion.

3. We sometimes meet with erosions of the mucous membrane lining the nares, when gonorrhœal matter

* This woman was the wife of one of the patients already alluded to as having *chancre larvé*.

has been inadvertently applied to these parts; and as this membrane and the urethral lining are similar in structure, we have a right to infer that their *pathological* condition may be the same.

CASE.—A gentleman applied to me with gonorrhœa, for which he was cured; but during the progress of the disease inflammation of the testicle set in, and he employed his handkerchief as a suspensory. On rising one morning, he inadvertently blew his nose in the handkerchief he had thrown aside the previous night. In a few days he was attacked with great heat and dryness of the parts, followed by a discharge mixed with blood; and on examining the nose, there was found considerable erosion of the mucous membrane lining the nares. This case was most obstinate; but it yielded at length to a solution of nitrate of silver, about ten grains to the ounce of distilled water.

This opinion does not accord with the well-known authorities on this subject. Mr. Hunter, Mr. Bell, and Sir A. Cooper deny such an occurrence, and support their opinions by the appearances presented upon post mortem examinations.

The difficulty which was formerly felt in accounting for the large quantity of matter discharged in gonor-

rhœa has been removed by the dissections alluded to; the matter being a secretion only from the patent mouths of the inflamed vessels, and not the result of ulceration, as was then supposed.

This abrasion therefore I do not regard as necessary for the production of gonorrhœal discharge; on the contrary, it is a result only of the irritating qualities of the matter acting upon a membrane unusually delicate.

SYMPTOMS OF GONORRHŒA.

To simplify the arrangement of symptoms, and render the treatment of this disease intelligible, it will be better perhaps to divide it into three stages.

First stage.—The earliest symptoms of gonorrhœa are a slight pleasurable itching round the orifice of the meatus, accompanied by a transparent redness, extending over the glans, and sometimes the prepuce, resembling, as Mr. Hunter has described it, “a ripe cherry.” These are succeeded by a slight pain in passing the last drops of urine, and a discharge of a little glairy fluid, staining the linen of a yellow or green colour. The colour of these stains, and the peculiar appearance of the glans, are the means by which we are enabled to determine the nature of this complaint.

Second stage.—There is no distinct line of demarcation between this and the first stage. Its presence is known by the symptoms becoming progressively more severe; the penis suffers from involuntary

nocturnal erections; the discharge becomes thicker; the ardor urinæ increases, and sometimes to an intolerable degree of acuteness; the desire to micturate is more urgent and frequent; the stream of urine is diminished in size, from the gorged state of the mucous membrane; and it not unfrequently happens that some of the turgid vessels rupture, giving rise to hæmorrhage.

As this stage embraces the most formidable of the symptoms, it requires the most careful watching. The inflammation in some cases proceeds so rapidly as to involve the whole of the prepuce, causing an infiltration of serum into the cellular tissue, phymosis or paraphymosis being the result. The small glands situated along the course of the urethra inflame, and, suppurating, give rise to troublesome sores, which are difficult to heal. The inguinal glands become swollen and inflamed from sympathetic irritation; but suppuration is less frequent in them than we might expect.

If the inflammation reaches the membranous portion of the urethra, the symptoms are more severe. The perinæum swells, and is painful to the touch; the testicles become inflamed and irritable, and Cowper's glands run into suppuration.

When the prostate gland becomes involved, the patient is distressed with tenesmus, and a fixed bearing-down pain in the upper part of the perinæum; water is voided with considerable difficulty, and frequently only drop by drop; the accelatores urinæ are affected with spasm, and the water is jerked with some violence from the passage. Considerable fever sets in; and on examining with the finger per anum, the prostate will be found enlarged and irritable. A dull, aching pain in the loins and hips frequently attends this stage of the complaint.

The inflammation spreading still further may reach the bladder itself. This is known by the tenderness felt on pressure over the region of this viscus, and an urgent desire to micturate, a few drops only passing at a time, which is compared by patients to the passing of melted lead. The water, after standing some time, loses its transparency, and becomes cloudy, from the numerous shreds of lymph and mucus which float in it. The tongue is white; the pulse quick and small; and all the symptoms of pyrexia are present in a marked degree.

Third stage.—Should the symptoms proceed favourably, in a few days after the first stage has commenced,

the more marked inflammatory symptoms subside, and the heat and scalding are less. The physical character of the discharge undergoes a change, and becomes whiter and thicker, assuming the appearance of a bland creamy fluid. The redness surrounding the lips of the urethra declines; the discharge decreases in quantity, and gradually disappears, or, what is not unfrequent, the discharge dwindles into a glairy fluid, called gleet.

It is impossible to predict with any certainty the termination of any description of gonorrhœa, as occasionally the most violent forms yield readily to treatment, whilst, on the other hand, the mildest descriptions are sometimes most protracted and troublesome in their duration. I have frequently remarked that where the more urgent symptoms suddenly give way, and are succeeded by mild ones, these cases are in general most difficult to remove.

When the ardor urinæ and inflammation gradually decline, and give place to a thick creamy discharge, we may generally predict a favourable termination; but where this does not follow, the discharge continuing pale and thin, we have reason to fear a protracted gleet.

It sometimes occurs that the gonorrhœal discharge is the cause of superficial ulceration of the perinæum. I attended a very stout gentleman last summer, who was the subject of excoriation of the perinæum and thighs, from constant walking; he contracted a gonorrhœa at the same time, the discharge of which coming in contact with the excoriated surface produced inflammation and ulceration; the matter secreted had all the physical appearances of clap, and was of a most offensive smell. It yielded, after a week or two, to astringent and sedative lotions.

TREATMENT OF GONORRHŒA.

THE rapid transition from health to disease which the mucous surfaces undergo, renders them peculiarly obnoxious to irritations of every description; and the slightest change in the circulation of the capillary vessels produces a corresponding alteration in their secernent extremities.

In health, the mucous follicles pour forth a mild bland fluid for the purpose of lubrication, and of affording this membrane protection. During disease this action is either suspended or vitiated, and a fluid differing in the chemical arrangement of its elements is secreted, which, instead of giving protection, is the source of irritation and excoriation.

As the reparatory process commences, and the inflammation declines, another change takes place in the secernent vessels. The discharge poured forth is of a less irritating quality, and becomes bland and opaque, the elementary particles of the fluid now assuming their natural healthy arrangement.

The inflammation of gonorrhœa differs only from

common inflammation, from its being primarily excited by a morbid poison, the stimulating properties of which irritate the nervous filaments of the mucous surface, and produce a specific change in the circulation of the capillary vessels; a corresponding change takes place simultaneously in the secernent functions, and a vitiated morbid secretion is the result.

Very little at present is known respecting the *modus operandi* of morbid poisons when applied to a secreting surface, or introduced into the system. We are aware of their presence only by the activity of their operations producing effects which, by precedent we know, are peculiar to these alone; such are the phenomena which follow the poison of variola, the poison of rabid animals, and the venereal and gonorrhœal virus.

The secretive functions of all organs of the body are regulated by the amount of nervous influence they possess. If this be deficient, then are their actions diminished; if increased, then are they accelerated, and a greater amount of solid or fluid product is the result. The former is seen in the case of a paralyzed limb, and the latter in the power which moderate stimulants have of augmenting the gastric secretion.

From such facts as these, I think it not unreasonable to infer, that all morbid poisons act by producing a direct impression upon the nervous system, influencing probably by electrical agency the secernent extremities of the capillaries, and changing the chemical arrangement of the elements of which these secretions are composed.

Their action upon the nervous filaments are so subtle as to evade perception; we are consequently ignorant of what that first impression may be; but in order to obviate the difficulty arising from this want of knowledge, and to facilitate expression, we employ the term *specific action*. From this view we may easily arrive at the fundamental principles of treatment in this disease.

1st. The first and most important indication is, to change the primary specific character of the inflammation.

2dly, To allay inflammatory action.

3dly, To restore the diseased vessels to a natural and healthy condition.

To fulfil these indications, we avail ourselves of two modes, by which remedies are brought to act upon the diseased surface.

1st. Indirectly, through the medium of the kidneys; by the employment of such medicines as augment the natural functions of these organs, and increase the secretion of urine, the active principles of which are carried undecomposed through the kidneys.

2dly, Directly; by the injection of fluid into the urethra, and by the application of leeches.

Like inflammation of all mucous surfaces, gonorrhœa will run through its regular stages. To stop the disease therefore in its commencement will be but a vague attempt, and one likely to prove troublesome in its results. To modify the violence of the symptoms, and shorten its stages, is all that can be done.

When applied to, therefore, in the first stage of gonorrhœa, our efforts must be directed to fulfil the first indication, and to make such an impression upon the inflamed vessels as shall in a great measure check the specific character of the disease.

There are certain vegetable products which appear in a marked degree to exercise a specific controul over the secreting vessels of the mucous surfaces during disease, exciting by their peculiar properties an altered action in the condition of the inflamed vessels. Amongst this class of remedies, copaiba has been

long and deservedly held in high repute; and I have rarely found it fail to produce a decided impression upon the disease, when judiciously resorted to in its first stage.

It is the custom amongst many practitioners to regard the inflammation attending this disease as the same in character with that arising from common irritation, and rigidly to pursue the antiphlogistic regimen—bleeding, purging, &c.;—a practice more likely to protract the disease than any I am acquainted with.

The longer these vessels are allowed to retain their specific action, the more obstinately will they resist our remedial measures; and the secernent vessels become so exhausted, that the disease modified by these circumstances hangs about a patient for months in form of a gleet.

Copaiba may be administered in a solid state in pills. This is effected by combining it with an alkali, which does not destroy its active properties.

Dr. Thompson recommends the spreading a pound of copaiba in a dish, and sprinkling on it one ounce of calcined magnesia, mixing it intimately, and exposing it for fifteen days until it acquires a consistence fit for making pills.

The following plan, recommended by Mr. Gardner, has the advantage of occupying less time:—

R Bals. Copaib. ʒv.

Magn. Bicarb. ʒiij. Ft. Mass.

Divide into 5 gr. pills, of which we may commence with four or five for a dose three times a day.

Cubebs, or Java pepper, is a remedy I am in the habit of prescribing with copaiba, and with marked success. These two remedies when combined appear to exercise a more decided controul over the disease, than when given separately. It has another very great advantage, that of destroying the nauseous flavour of the copaiba, and forming a mixture not by any means disagreeable to the taste. I have found this mixture to impart an agreeable warmth, and sit comfortably on the stomach, when the copaiba alone has been rejected.

The following is the formula I am in the habit of recommending:—

R Pulv. Bac. Cubeb. ʒvi.

Bals. Copaib. ʒii.

Ext. Hyoscy. ʒiss.

Liq. Potass. ʒi.

Mucil. Acaciæ ℥ iij.

Syrup. Simp. ℥ ss.

Aquæ Ment. Pip. ℥ vss. M. Ft Mist.

Two table-spoonfuls of this should be taken every four hours, and the dose gradually increased until a marked impression is made upon the disease. This mode of prescribing copaiba and cubebs together has been much resorted to by Velpeau, and with the most beneficial results. Mr. Liston also recommends it in his "Elements of Surgery."

In some constitutions copaiba produces an eruption very similar to nettle-rash. This is of no consequence; but when it occurs, we must discontinue the medicine for a short time.

The active principle of cubebs resides in its volatile oil; it is therefore bad policy to keep this drug in powder. The best plan is to grind in a mill the quantity we may require each time, as the powder purchased in the market is sometimes deprived of its volatile oil before it reaches us. This oil is preferred by some, from ten to twenty minims for a dose; but as I have found the fresh powder answer every purpose, I have not given it sufficient trial to offer an opinion

upon its efficacy: it may be given in the form of an oleo-saccharum dissolved in water.

Wildenow, whose copaiba capsules have been much employed in the treatment of this disease, has lately introduced an extract of cubebs, inclosed in the same manner as the copaiba. I should doubt very much the efficacy of this preparation, as in preparing it great risk is incurred of losing its volatile oil, on which the active principle of this drug depends. A tincture of cubebs may be made by digesting four ounces of the bruised berry in a pint of proof spirit, and allowing it to stand for a week. It should be then strained, and from twenty to thirty drops given for a dose.

Mr. Gardner, of Great Portland Street, has lately called the attention of the profession to an indigenous plant, the *Senecio Jacobæa*, or ragwort, as a remedy in gonorrhœa. He has employed it in the form of an extract, which, on account of its nauseous flavour, is administered in pills, in doses of 15 grains, three times a day, in the first stage of the disease. He does not speak confidently of its efficacy; but, from the experience a few cases have afforded him, he appears sanguine as to its usefulness.

Dipterocarpus lævis, or grugum, is a remedy much employed in India, in the treatment of gonorrhœa. In the Bengal Dispensatory, Dr. O'Shaughnessy speaks highly of its virtues, and recommends from 10 to 20 drops of the essential oil three times a day. Its action is something similar to cubebs, imparting a feeling of warmth to the stomach. Its presence is readily detected in the urine by its strong terebinthine odour. Dr. O'Shaughnessy has cured with it some obstinate cases of chronic gonorrhœa and gleet, which had long resisted all other remedies.

Purgings.—Strong purgatives in this stage of the disease are by no means admissible; in fact, I have never found them requisite in any stage of the complaint. If you wish to keep up the running, nothing is more likely to serve your purpose than strong purgatives. The bowels are to be acted on by laxatives of the mildest kind; the copaiba itself is sometimes sufficient without exhibiting any other form of aperient.

Stimulants.—These the patient must particularly refrain from. I have known a gonorrhœa in a fair way of recovery, become as bad as ever from a single glass of wine.

Exercise.—Violent exercise must be avoided. Much walking is injurious. Horse exercise, in particular, must be prohibited.

In this stage of the complaint it is in the patient's power to do much for himself. "Cleanliness is a virtue;" and in no disease is it more likely to prove so than in the present. The prepuce must be drawn back, and the glans well washed in cold water two or three times a day, so as to remove all accumulation of discharge; after which the penis should be enveloped in a cold saturnine lotion, and, with the testicles, be well supported by suspensory bandages; total abstinence from stimulating drinks and high-seasoned food and condiments being at the same time strictly observed.

The favourite lotions of Boerhaave were composed of honey, salt, wine, and water; or a solution of myrrh in wine or vinegar, and a small quantity of aloes much diluted with water. With one of these the penis was bathed frequently during the day. He was also much in the habit of using a cataplasm composed of marsh mallow, linseed, chamomile flowers, elder flowers, horehound, and muriate of ammonia, mixed together, with a little linseed oil added to it.

This was spread upon a cloth and put round the penis.

Whatever has a tendency to excite the passions should be avoided; the allurements of female society, and all provocatives of a similar description, must be shunned.

A very foolish practice is frequently adopted by patients, that of tying the penis up in linen, to prevent the discharge staining the shirt: this is likely to protract the disease by confining the discharge. Every facility should be given for a free exit of the matter; and when this is profuse, the linen must be so applied as to form a bag at the extremity of the penis, which should be frequently changed. With a view of keeping the parietes of the urethra separate from each other, and absorbing the discharge, M. Ricord introduces a piece of lint into the passage by means of an India-rubber canula. "One of the ends has a loop made with a thread, so as to afford a resting point for a style, which holds it whilst the canula is withdrawn; when this is done, the style is also removed, whilst the lint remains in its place, where it ought to be kept till the next time of passing the urine. If too much irritability be not present, it should be replaced two or

three times in the twenty-four hours; otherwise once will suffice.”* M. Ricord recommends, that the partial baths should be nearly cold in the acute stage, and afterwards quite cold; he has frequently seen the discharge maintained, and even recalled, by the injudicious employment of warm baths.

Injections.—Of all methods hitherto in use for the cure of gonorrhœa, none have met with a greater share of attention than these. It is very evident that they were employed by the early writers on this disease; for in a work published by Augerius Ferrerius, of Toulouse, in 1553, we find that he advised practitioners not to use refrigerating injections, lest by their means the *sphincter vesicæ* should become so much relaxed as to occasion involuntary discharge of urine.

Gabriel Fallopius seldom resorted to these remedies, as he always found the disease to yield to decoctions of guaiacum and nitre.

Charles Musitanus, in 1676, recommended injections of plantain water with sublimated *mercurius dulcis* dissolved in it; one ounce of which was to be injected into the urethra three times a day.

* Drummond's translation of Ricord.

Whatever may have been the opinions of the earlier writers respecting the use of injections, modern experience fully justifies us in regarding them as most useful adjuncts in the treatment of this disease; for when used with judgment and precaution, in the first and last stages of this complaint, they prove most serviceable. In the first stage they should be sufficiently stimulating to excite an altered action in the condition of the capillaries; which action, co-operating with the medicines already spoken of, changes the whole nature of the disease.

In the second stage they are decidedly injurious, augmenting in a marked degree the pain and inflammation, without effecting any radical change in the complaint.

The most effectual injections are solutions of the metallic salts, combined with a sedative, which produce at the same time the double effect of stimulating the vessels, and allaying morbid sensibility. The following is an injection I have often found serviceable in the first stage:—

R Acet. Plumbi ℥ss.
Acid. Hydrarg. M iij.

Zinci Sulph. gr. xij.

Sp. Vin. ℥i.

Aquæ Rosæ ℥ vi. M. Ft. Inject.

One ounce of this should be injected four or five times a day, taking care that the water is passed each time before injecting.

The following plan for injecting should be strictly attended to. The conical extremity of the syringe must be cautiously introduced into the urethra, and retained there, by compressing the glans upon it with the thumb and fore-finger of the left hand; the little finger of the same hand pressing the under surface of the penis just at its junction with the scrotum, in order to prevent the fluid from passing further back than this point. The piston is to be gradually pressed down by the fore-finger of the other hand, until the urethra feels distended, when the instrument is to be cautiously withdrawn, pressure being still kept on the glans, in order to prevent the escape of the fluid, which should be retained at least half a minute each time. This is to be repeated twice each time of injecting.

As injections have but a transitory controul over the disease, the necessity of using them frequently is

apparent; for it is by keeping up this artificial stimulus that the morbid action is overcome.

The best rule to regulate their frequency of repetition is the smarting produced by their employment, which should never be allowed to subside.

Mr. Bell was in the habit of employing injections in all stages of this disease, whatever amount of inflammation was present; and it was his opinion, that there was only one symptom which precluded their use, *viz.*, inflammation of one or both testicles. His common form of injection was half a drachm of the sulphate of zinc dissolved in a pint of water. When this failed, he often succeeded with a tea-spoonful of brandy added to half an ounce of rose water, and sometimes with port and claret duly diluted.

A combination of opium, camphor, and sulphate of zinc, may be sometimes resorted to, and with good effect.

Mr. Hunter thought favourably of irritating injections in the commencement of gonorrhœa, where the symptoms were mild and the constitution not irritable. His favourite remedy was two grains of corrosive sublimate dissolved in eight ounces of water.

Sir A. Cooper condemned the use of injections in the

first instance, and preferred an antiphlogistic plan of treatment, such as purging, fomentations, &c. In the third week he commenced with an injection of the sulphate of zinc and acetate of lead.

The liquor cupri ammoniati, in the strength of twenty drops to four ounces of distilled water; six grains of the sulph. cupri dissolved in the same quantity of water; a combination of half a drachm of alum to one drachm of powdered kino, in six ounces of water; or the balsam of copaiba itself, in the strength of one drachm suspended by means of mucilage in six ounces of water, may any of them be resorted to with a prospect of success.

Nitrate of silver is a remedy much vaunted of late for the cure of gonorrhœa; and when used in the first stage of this complaint, it is said instantly to check the discharge. Great caution is requisite in the application of this remedy; for when used of the strength recommended by some, the inflammation and pain attending it are most intense, and bleeding from the urethra not unfrequent. When used of the proper strength, viz., of two grains to the ounce of distilled water, it excites an action in the vessels different from that of the gonorrhœal virus, and is thus peculiarly

applicable to this stage of the complaint. It is much better to commence with a weak solution, gradually increasing the strength until the requisite amount of irritation is produced.

Mr. Carmichael, of Dublin, stigmatizes the practice of using strong solutions of nitrate of silver as one that cannot be too strongly deprecated. He never exceeds one grain to the ounce; his more frequent solution is a quarter or half a grain to that quantity.

Velpeau employs it in the strength of one grain to the ounce, and at the same time that the cubebs and copaiba are administered internally. During its employment, he affords support to the inflamed vessels by keeping the urethra constantly compressed by means of small graduated compresses dipped in starch, applied from the bulb to the fossa navicularis, and retained in their situation by a bandage.

Mr. Wallace has used it of the strength of 15 grains to the ounce.

The solution preferred by M. Ricord is a quarter of a grain to the ounce; which he increases by a quarter of a grain, till it produces pain, or a diminution of the discharge. Rather than use very strong solutions, he prefers superficial cauterization, as ad-

vised by Lallemand, and then introduces a piece of lint. This is done by passing the nitrate of silver through Lallemand's caustic holder, exposing the caustic, and then withdrawing it with a rotatory motion, so as to superficially cauterize the whole of the mucous lining of the urethra. When the disease commences with much pain, M. Ricord does not use injections, as he seems to think that the failure of what he calls the *abortive* treatment often proceeds from their employment under such circumstances.

The plan I adopt myself is to commence with a quarter of a grain to the ounce of distilled water, at the same time I administer the copaiba and cubebs internally. Whilst writing this, a gentleman has presented himself to me, whom I have cured in a few days by this mode of treatment. Until the injection leaves a smarting for at least twenty minutes or half an hour after using it, we shall not derive much benefit from it. Should therefore a solution of the strength I have named not be sufficient to effect this, we must gradually increase it by a quarter of a grain each time.

Iodide of iron is a remedy M. Ricord speaks most flatteringly of. In the strength of one grain to the

ounce, he has succeeded in arresting the discharge in four or five days. He has sometimes had occasion to use 18 grains to the same quantity of fluid.

Chloride of zinc is a remedy which has been much extolled by M. Gaudriot in the treatment of gonorrhœa. He only uses a few drops as an injection, applied quite at the extremity of the urethra. With females, he recommends the use of solid vaginal suppositories, formed of a paste made easily to melt, containing a few drops of liquid chloride of zinc and sulphate of morphine. His injection is as follows:—

Rx Liq. Zinci Chlorid. M xxiv.

Aquæ distillat. ℥ iv.

Agitate, and filter through paper.

A small quantity of this is to be injected two or three times a day.

When any particular form of injection is made use of, it is best to employ a glass syringe, in order to obviate the risk of decomposition taking place between the salt and the metal of which these instruments are made. The description of syringe recommended by Mr. Acton in the Medical Gazette* will not only be

* Vol. II., 1841-42, p. 429.

found economical, but will answer every purpose required.

The objections which at one time prevailed against the use of injections have of late been very properly thrown aside; and the opinion is now becoming more general, that there is less chance of stricture supervening on gonorrhœa, where these have been resorted to in the commencement of the disease.

With these means, when applied to in the first stage of gonorrhœa, we shall seldom fail to produce such an alteration in the condition of the capillaries, that the disease runs through its stages in a comparatively short space of time, and with a trifling amount of inconvenience to the patient; but where they fail, or when the patient applies for advice with symptoms marking the second stage, our manner of treating the disease must be very different.

TREATMENT DURING THE SECOND STAGE.

Here all possible means are to be resorted to in order to relieve the capillaries of their loaded condition, and restore them to their lost calibre.

For this purpose blood must be abstracted by means

of leeches applied to the under surface of the penis; or if the patient is of a plethoric habit of body, and there is much fever present, with a quick full pulse, general bleeding may be resorted to, and with a good effect. It is but rarely we find this latter expedient necessary, as in ordinary cases leeches alone will suffice to unload the turgid vessels. On applying leeches we must be careful to place them in a situation where there is the least risk of the discharge coming in contact with the bites. The safest place therefore is behind the scrotum, as near the rami of the pubis and ischium as possible, and just over the site of the internal pudic artery. Should the gonorrhœal matter, by any inadvertency, touch the leech bites, it is likely to occasion nasty troublesome ulcers.

The discharge should be allowed a free egress. The practice so often adopted, of confining it by lint, is decidedly injurious. Instead of this, I would recommend a narrow strip of very fine sponge to be passed into the urethra, and well secured around the penis by means of a piece of tape and strapping. At the same time that it absorbs the discharge, by swelling with the moisture, it affords great support to the inflamed vessels. It can be readily introduced by the aid of a

small gum elastic bougie, and it need not reach further back than two or three inches from the mouth of the urethra. Every time the patient passes water, this should be withdrawn, and a fresh piece used. I consider this much preferable to the passing of lint, as recommended by M. Ricord, on account of the pressure it exerts upon the dilated vessels.

This plan may be taken advantage of also when we find it desirable to employ stimulating and astringent injections; for, by soaking the sponge in the solution, we have an easy method of keeping the lotion in continued contact with the inflamed mucous membrane. When using a lotion in this way, it is best to commence with weak solutions of the metallic salts.

The bowels are to be gently acted on two or three times in the twenty-four hours. Strong purges are injurious. I have been in the habit of prescribing the following mixture, which is mild in its operation:—

℞ Magn. Sulph. ℥vi.
Magn. Carb. ℥i.
Sodæ Sesquicarb. ℥iss
Vini Sem. Colch. ℥i.
Syrup. Aurant. ℥ss.
Aquæ puræ ℥vss. M. Ft. Mist.

Two table-spoonfuls are to be taken three or four times in the day; to each dose of which ten or fifteen grains of nitre may be added.

To co-operate with these measures we must avail ourselves of the contractile power of the dilated vessels, the mechanical pressure induced by which propels the blood through the hitherto stagnant channels. For this purpose one of the most active therapeutical agents we can employ is cold, which may be applied in the form of an evaporating lotion during the day, and a poultice at night, with Goulard extract. In order to render cold beneficial, it should be kept continually applied to the penis; otherwise its effect is merely transient, re-action takes place, and the inflammation returns with increased violence.

ARDOR URINÆ.—No symptom in gonorrhœa is more distressing than this; it is commonly called scalding,—and a very appropriate name it is for it. Patients dread every call they have to empty their bladder, the pain is so severe.

When this symptom is urgent, as little fluid as possible is to be taken into the stomach, so that the demands for micturition may be less frequent. Muci-

laginous drinks, such as solutions of gum arabic, or linseed tea, barley water, thin gruel, &c., &c., with nitre, are to be taken to assuage thirst. Before passing water, an injection of sweet oil is of service in sheathing the urethra against the irritating properties of the urine.

Liquor potassæ, combined with the ext. conii, will often greatly alleviate this symptom: twenty drops of the former, and five grains of the latter, should be given every four hours until this symptom is relieved. Some people speak of the acetate of lead as being productive of marked benefit. Astruc's favourite remedy was camphor and acetate of lead, given in the quantity of six grains of the former to half a scruple of the latter; but he gives a just caution to use them sparingly, especially the acetate of lead.

CHORDEE.—This affection is occasioned by effusion of coagulable lymph into the reticular texture of the corpus spongiosum. During an attack of this kind, the penis is curved downwards, or is drawn to one side, causing the most intense pain.

The attacks come on suddenly, and frequently during sleep, when the patient gets warm in bed, or

is disturbed with voluptuous dreams. Occasionally, during the fits, a profuse bleeding from the urethra takes place, which is followed with considerable relief, and frequently produces a cure.

These attacks are best prevented by lying cool in bed, avoiding stimulating food and drink, and all sexual provocatives.

Local depletion by means of leeches is often of great service. A proper dose of opium combined with camphor, or some antispasmodic, at bed-time, seldom fails to assuage its violence. Dipping the penis in cold water, and cold saturnine lotions, will afford instant relief.

Where these attacks come on at night, belladonna poultices applied to the perinæum will sometimes prevent their approach.

No attempt should be made to prevent the exacerbations of chordee by fastening the penis down by means of a ligature, as it may be productive of very bad consequences.

For the hardness which remains after the painful erections have disappeared, the ung. hydrarg. camphorat. will be found the most useful remedy we can employ.

DYSURIA, or a difficulty in passing water, must be combated with antiphlogistic remedies. Leeches on the perinæum, hot poppy-head fomentations, warm baths, bleeding from the arm, and frictions on the perinæum, with the extract of belladonna, must be resorted to. Should these means fail, and a complete retention ensue, we have no other alternative than to draw off the water with a catheter.

INFLAMMATION OF THE PROSTATE.—Immediately symptoms indicating an attack of prostatitis make their appearance, blood should be abstracted, either from the arm, or from the perinæum, by means of leeches. Mild aperients, together with antimonials, are to be administered. Hot anodyne fomentations and poultices to the perinæum, and the warm bath, afford much relief.

Opium and its preparations, either given internally, or used per rectum, afford the most signal relief. Their constipating tendency may be obviated by injections of warm water. Thirty minims of the opium mixed with two ounces of starch, thrown into the rectum, affords great relief to the tenesmus. Morphia may be employed in the same way.

Mr. Coulson alludes to a novel mode of applying leeches to the prostate, first employed by Mr. W. Craig. It consists of a tube, into which is fitted a piece of wood, with a handle at one end, while the other terminates conically in a blunt point, for the purpose of gradually dilating the rectum. When this is effected, the wooden dilator is to be withdrawn, and a box of a proper size to fit the tube, and capable of holding three or four leeches, with a piece of wire to form a handle fixed into the bottom of it, is to be pushed through the tube. The tube must be lubricated with oil previous to using it; and in introducing it, it must be directed towards the rectum, in order to prevent its coming in contact with the tender prostate.

Rigors do not frequently attend the formation of matter in prostatitis. The calls for passing water becoming more frequent, and a great difficulty of micturating, together with a sense of weight and fullness in the perinæum, render it probable that matter has formed; an examination per rectum should not be overlooked, as it will assist us materially in our diagnosis.

Immediately fluctuation is discovered, the abscess must be punctured with a lancet, as it is highly de-

sirable it should be prevented from opening into the urethra, bladder, or rectum.

INFLAMMATION OF THE MUCOUS MEMBRANE OF THE BLADDER.—The treatment here is very similar to that for prostatitis. At the commencement the most rigorous antiphlogistic treatment must be adopted, and blood abstracted from the hypogastric region, by cupping, or by the application of leeches. This is to be repeated as often as the severity of the symptoms demand, and as long as the pulse will permit.

In addition to the anodyne emollient injections, hot fomentations &c., together with the hot bath, are to be resorted to. Great relief will be afforded by covering the whole of the hypogastric region with a large linseed meal poultice. Opium will here also be found a most valuable remedy, which should be given in sufficient doses to allay the pain about the bladder and urethra.

When the symptoms become mitigated, but the discharge of mucus copious, and a frequent desire to micturate still remains, the copaiba should be administered, or an infusion of diosma, in the proportion of an ounce to the pint of water. The diet should be

light, consisting of bland farinaceous food, together with diluent drinks, toast and water, linseed tea, barley-water, &c., in small quantities at a time, in order to lessen the secretion of urine.

TREATMENT DURING THE THIRD STAGE.

When the specific action of the disease remains for some time uncontrolled, the secernent functions of the capillaries suffer a gradual exhaustion, and the mucous follicles acquire a habit of secreting a larger quantity of fluid than in an ordinary state of health. This fluid, in pure unmixed gleet, is nothing more than an augmented secretion of the natural mucus from the patent mouths of these vessels, a fluid altogether mild and innocuous. But it very rarely happens that gleet presents itself to us in this form; it being more frequently connected with a remnant of the original inflammation, which has assumed a chronic type.

This view of the disease will at once set at rest a long disputed subject, *viz.*, the contagious or non-contagious properties of this fluid, and will readily account for the great discrepancy of opinion amongst medical authorities.

A number of well authenticated cases are on record, of persons afflicted with gleet having connection with females without causing the slightest trace of disease in them, and of husbands even cohabiting with their wives with impunity under similar circumstances; whilst there are others, again, with whom such a practice has led to the most disastrous results. The most probable opinion is, that the former were cases of pure unmixed gleet; and the latter, cases in which the specific character of the disease still remained, in the form of chronic inflammation, and which consequently impregnated this fluid with its contagious properties.

It is very difficult to determine from appearances whether the form of gleet presented to our notice possesses any contagious particles or not; the experiment which would so materially assist us in forming an accurate diagnosis, involves too materially the safety and happiness of individuals. Under all circumstances, therefore, it is advisable to prohibit sexual intercourse as long as any trace of the disease remains.

When a patient is anxious to ascertain this point, a safe plan will be, to order an irritating injection of nit. argent. ; when, should the complaint be unmixed, its

only effect will be that of stimulating the vessels; but should a remnant of the original disease be still lurking in the passage, the gonorrhœal discharge will again be brought back.

Patients of a strumous taint often suffer great annoyance from affections of the lacunæ, particularly the lacuna magna, which by pressure discharges matter of a creamy consistence, very trifling in quantity, and often not perceptible, until after an accumulation of the night.

A discharge of a ropy transparent nature, resembling gleet, is sometimes emitted from the urethra after an evacuation from the bowels. This discharge proceeds from the vesiculæ seminales, and is quite different from the ordinary character of gleet.

Pure gleet itself will generally yield to local treatment alone; but when complicated with a trace of the original disease, however slight, we must make use also of internal revulsives.

Gleet, consisting of a preternatural discharge of the ordinary mucus of the urethra, must be treated with irritating astringent injections, such as induce slight inflammatory action in the parts so affected; but the most successful plan we can adopt will be the intro-

duction of bougies every other day, combined with astringent injections daily. I have succeeded in this way in curing gleet of many months standing, which had resisted all other modes of treatment. Another plan I have succeeded with, and one which is recommended by M. Ricord, *viz.*, superficial cauterization of the mucous membrane, by means of Lallemand's caustic holder. I have only recently adopted this practice, and from the few cases in which I have given it a trial, I think it fully deserves the encomiums passed upon it by this surgeon.

The caustic holder of Lallemand is similar in appearance to a catheter, without possessing so much of its curve, and open at both extremities. It has two stilets, one smooth and conical at its distal end, which is made to project beyond the opening in order to protect the urethra whilst introducing the instrument, and the other is supplied with a caustic holder for the purpose of holding the nitrate of silver. The instrument is passed in the same manner as a catheter; the first stilet is then removed, and the one containing the caustic introduced in its place, the whole being withdrawn with a kind of rotatory movement.

Injectations of a strong infusion of green tea, will sometimes succeed when all other means have failed.

Mr. Jones has successfully treated gleet by injections of the tincture of the sesquichloride of iron, in the strength of twenty-five minims, gradually increased to forty, three times a day. With this remedy he states that he has cured, in fifteen days, a gleet of twelve months standing.

As external revulsives in the treatment of gleet, M. Ricord recommends blisters to be applied to the inner sides of the thighs, and over the hypogastrium. I have often found the following liniment serviceable, rubbed along the under surface of the penis:—

R_x Tinct. Cantharid.

Liniment. Camph. Co. aā 3vi.

Ft. liniment. rubefaciens.

This is rubbed on by means of a flannel, along the course of the urethra, every night before getting into bed.

In old standing gleets, however, previous to resorting to this plan of treatment, the urethra must be sounded with a bougie, in order to ascertain if any

stricture exists in the passage; and if so, it must be treated accordingly.

One very important step towards a cure is attention to the patient's general health. If a strumous diathesis prevails, we must employ such remedies as are applicable to scrofula. A combination of sarsaparilla and hydriodate of potash should be taken daily, and a light, generous, and slightly stimulating diet allowed, together with change of air, and cold sea-bathing.

The following mixture I have found of great service:

R Tinct. Cantharid. ʒi.
Acid. Sulph. dil. ʒss.
Quinin. Sulph. gr. xii.
Th. Ferri sesquichlorid. ʒii.
Aquæ distillat. ʒ vss. M. Ft. Mist.

Two table-spoonfuls of this are to be taken three times in the day.

In the mixed form of gleet, in addition to the local treatment recommended, we must administer anti-gonorrhœal medicines internally, such as the copaiba, cubebs, &c.

When a patient applies to me with this form of complaint, the plan I generally pursue is to recall the discharge, which may be easily accomplished with

irritating injections of nitrate of silver, or by means of strong aperient medicines. Having succeeded in this, my treatment is the same as in common gonorrhœa.

For those painful affections of the urethra which remain after the discharge has ceased, and which may be looked on as neuralgic, drawing a stick of lunar caustic, previously moistened in water, along the under surface of the penis, every other day, will often relieve the symptoms.

A strong solution of iodine, of Lugol's strength, I have also found beneficial, applied by means of a camel hair pencil along the same situation. The following is the formula I employ:—

R Iodini ℥x.

Potass. Hydriod. ℥iv.

Aquæ distillat. ℥ii. M.

Ft. Solutio.

Should abrasion of the mucous surface be present, superficial cauterization of this membrane will often cure the complaint.

BALANITIS AND POSTHITIS.

Gonorrhœa, instead of attacking the lining membrane of the urethral passage, at times confines itself exclusively to the glans and prepuce. The former is expressed by the term **BALANITIS**, and the latter **POSTHITIS**. It is but rarely that these two affections exist separately; the close proximity of the glans and prepuce rendering it almost impossible that one can be present without the other.

These affections commence in a manner very similar to gonorrhœal urethritis, with a degree of itching and soreness around the corona glandis, followed by inflammation, and subsequently a thick muco-purulent discharge.

Where these cases are unconnected with phymosis or the existence of warty excrescences, our plan of treatment is very simple. Superficial cauterization of the prepuce and glans, by drawing a stick of lunar caustic quickly around the corona, and afterwards interposing a piece of lint moistened with a solution of

sulphate of zinc or acetate of lead, will rarely fail to remove the disease.

M. Ricord regards anti-gonorrhœal medicines as useless in these complaints; but I must confess that I have found them to confer much benefit, in cases connected with an excess of length in the prepuce.

Where phymosis exists, whether it be congenital or acquired, it is one of the most powerful agents in maintaining the discharge. If, therefore, the non-existence of chancre be ascertained, the speediest way of removing the disease is by dividing the prepuce. This is easily accomplished, as will be seen hereafter. A day or two subsequently, we may commence the treatment with the caustic. In this way we shall succeed with cases which before had resisted all other attempts at cure. After the operation, slightly resolutive lotions are to be applied, either of cold water, or saturnine lotions.

Should these affections, however, be complicated with chancre, we ought not to be in a hurry to operate, but wait patiently until these sores have healed, and be content with injecting, between the prepuce and glans, solutions of the metallic salts, or the black wash, and afterwards enveloping the penis in cold

saturnine lotions. Under such circumstances, the only symptoms which would justify our resorting to the knife, would be those which threaten the approach of gangrene, or the presence of gangrene itself. When the parts are thus threatened, we may first try fomentation with a solution of the extract of opium, together with injections of this fluid, whilst at the same time we administer opium internally.

When there is much œdema present, and the inflammation itself is but trifling, a few incisions into the prepuce, so as to form an escape for the fluid, and afterwards enveloping the penis in cold astringent lotions, will in general suffice.

In phymosis unconnected with syphilitic chancres, I know of no objection to the operation; and would therefore recommend its adoption immediately a patient applies for advice.

At one time I experienced some difficulty in treating these cases; but since resorting to immediate operation, I have recovered in a few days cases which before occasioned me some considerable trouble. The operation, performed in the manner I shall speak of hereafter, will not occasion the slightest deformity. These affections, if not early attended to, are very apt

to become chronic, and to occasion a great deal of annoyance and trouble to the patient. With such, bathing the glans and prepuce in cold brandy and water, night and morning, will be found efficacious.

In some persons the glandulæ odoriferæ naturally secrete a large quantity of a thick curdy fluid, which, when the prepuce is long, accumulates very rapidly between it and the glans. With these cases inattention to cleanliness is frequently a fruitful source of disease. Warty excrescences, herpetic affections, and even phymosis itself, may ensue. The prepuce should be drawn back every morning, and this secretion removed; the parts being afterwards bathed in a cold astringent lotion.

CONSEQUENCES OF GONORRHŒA.

STRICTURE.

Not an unfrequent consequence of gonorrhœa is stricture of the urethra, caused by a thickening of this passage at some particular part, and a consequent diminution of its natural calibre. This thickening was not considered by Mr. Hunter to extend always equally around the urethra, as in some cases which he met with, the disease confined itself to one side alone.

When inflammatory symptoms run high in gonorrhœa, the swollen state of the meatus at some part produces a temporary constriction; the removal of which is progressive, and keeps pace with the decline of the inflammation. This is called the *inflammatory* stricture. Another, the result of a spasmodic affection

of the surrounding muscles, is called the *spasmodic* stricture. This frequently comes on suddenly, and after a night's debauch. The patient, having had no warning of its approach, is surprised, on rising of a morning, to find that he is prevented from emptying his bladder. A liberal indulgence in acid drinks—punch, for instance—has been known to produce an attack of this kind. Exposure to cold is a frequent cause of this affection. People of nervous temperament are more predisposed to it than others.

Of these varieties of stricture, the one most frequently met with, after gonorrhœa, is the *permanent*, resulting from chronic inflammation, which produces a deposition of adhesive matter in the surrounding cellular tissue.

The seat of the stricture varies; but there is one part of the urethra much more prone to its attack than any other, near the bulb, just where it joins the corpus spongiosum. Mr. Hunter and Mr. Bell never met with stricture in the prostatic portion of this canal, although Sir A. Cooper particularly alludes to it as one of its seats, and names three situations in which stricture may be found,—anterior to the bulb, posterior, and within the prostate itself. Independent of these,

the orifice of the urethra, and the two extremities of the fossa navicularis, are each the occasional seat of this complaint.

Stricture, of itself, generally occupies a very limited portion of the urethra, although its effects extend considerably beyond the seat of the disease. On examining the constricted portion, it appears as if a piece of common thread were tied tightly around the passage; but at times it presents a much broader aspect, the disease extending from the bulb to the prostate gland. It has been remarked, that the nature of stricture varies according to the part in which it occurs; forming a mere bridle at the orifice, broader in the spongy portion (the ribband stricture of Sir Astley), and linear at the curve (the corded stricture of the same great authority).

The consequences which must ensue from any obstruction to a free evacuation of the bladder, lead us to place stricture amongst the most formidable diseases of the genito-urinary apparatus; and post mortem appearances justify our very natural suspicion of the pathological condition of the parts situated behind the stricture.

From the opposition offered to a free performance of the functions of the bladder, that part of the urethra nearest this viscus gradually yields to the distending power, and becomes permanently dilated. The bladder, from the violent efforts made to expel its contents, suffers derangement of structure, and from its excessive action becomes hypertrophied; the ureters enlarge; and ultimately the kidneys themselves undergo disorganization. That portion of the canal anterior to the stricture sometimes suffers from symptomatic inflammation.

M. Civiale has frequently found the ureters inflamed and distended, but not usually thickened. The distension, he says, may occur on one side, or only at intervals, giving the appearance of nodosities. Sometimes a narrowing of the canal, analogous to that of the urethra, occurs at intervals.*

One of the most formidable terminations of stricture is extravasation of urine from bursting of the urethra, which, from the continued application of the distending power, becomes attenuated, and at length yields to the force applied. Fortunately this is not a frequent

* *Traité Pratique sur les Maladies des Organes Genito-urinaires, par le Docteur Civiale.*

event, as it generally ends fatally, the patient sinking under the irritating fever consequent on the immense destruction and sloughing of the soft parts. When such happens, no time is to be lost, but free incisions are to be made into the surrounding cellular tissue, for the purpose of affording a free evacuation of the extravasated fluid.

FISTULA IN PERINÆO.—From the unequal pressure applied to the inferior surface of the urethra, that portion of it situated close behind the stricture is occasionally forced beyond the constricted part, forming a pouch, into which the urine passes, and, accumulating, excites inflammation and suppuration of the soft parts surrounding. During the formation of these abscesses, the patient experiences an increased difficulty in making water, attended with febrile indisposition, and a sensation of throbbing weight and fulness in the perinæum; intense pain is felt on pressure, and, after a time, a fluctuating tumour becomes apparent. Should this not be opened, the tumour bursts, and discharges a quantity of pus blended with urine. As the more urgent symptoms subside, the quantity of pus diminishes, but an artificial opening remains, through

which the urine flows every time there is a demand to evacuate the contents of the bladder. It sometimes, though less frequently, happens, that the parts heal, and the stricture being included in the ulceration is removed, the water passing through its natural channel.

Perinæal abscesses sometimes arise independently of any ulceration of the parietes of the urethra, from sympathetic irritation alone.

Mr. Hunter alludes to stricture as one of the *supposed* consequences of gonorrhœa, and, under the impression that injections predispose to these attacks, prohibited their employment when the inflammation had gone beyond what he called its *specific* extent. This was the opinion of Abernethy, Sir E. Home, Desault, and others.

Mr. Bell believed that injections were more effectual than any other remedy in preventing them; and I think it is now generally acknowledged, that there is much less chance of stricture occurring if we resort to an early and judicious employment of injections.

The evil consequences of gonorrhœa are in the ratio of the extent and duration of the disease; our great object, therefore, must be to cure it quickly; should the

slightest spark of inflammation remain, we cannot insure an indemnity against an attack of stricture.

From the gradual manner in which permanent stricture comes on, we might suppose that the patient is made acquainted with its approach. But such is not always the case; and it sometimes occurs, that the flow of urine is suddenly stopped, without there having been any apparent reason to suspect its existence—at least, without the patient having had his attention directed to the seat of disease.

SYMPTOMS OF STRICTURE.

The first thing generally observed is some alteration in the stream of urine as it issues from the passage, which is diminished in size, or is forked, scattered, or twisted. The patient has a difficulty in retaining his water, and has frequent desires to pass it, which he does with some difficulty, a few drops of urine being retained in the urethra, which dribbles away some time after he has emptied his bladder. In addition to this, a pricking pain is felt in the urethra, and there is a thin gleety discharge, but not of an infectious nature.

Paroxysms of shivering frequently attend strictures of the urethra, and, on entering the patient's room, you are impressed with the belief that he is labouring under an attack of intermittent fever. Sir A. Cooper particularly alludes to this, and recommends opium as a remedy.

Sir E. Home has related some instances in which the contraction was so great, as altogether to stop the emission of semen, and force it back into the bladder.

The same author also alludes to nocturnal emissions as a very common symptom of stricture; and there are patients with whom this is the only symptom present.

Whenever a patient complains of wetting his linen, after passing his water, in consequence of the retention of a few drops within the urethra, our suspicions should be awakened. The urethra should be sounded with a bougie, and the exact position, nature, and extent of the disease ascertained.

TREATMENT OF PERMANENT STRICTURE.

For the removal of stricture, it was formerly the practice, in ordinary cases, to trust solely to the

sedulous application of simple mechanical pressure by the aid of bougies; but where the orifice was so small as to preclude the possibility of passing the end of the bougie, Mr. Hunter proposed to enlarge it by the effect of caustic. In addition to these, modern surgeons have employed two other modes—one, the dilatation by fluid pressure, recommended by Dr. Arnott; and the other, the division of the stricture on Mr. Stafford's principle, by means of an instrument armed with a stilette.

Foreign surgeons have adopted other means than these. Lallemand and Mayer, for instance, have resorted to forced dilatation; but as this is not likely to be employed by English surgeons, I shall confine myself to such only as I consider practically useful. We employ then—

1st. Simple dilatation.

2d. Dilatation by fluid pressure.

3d. The application of caustic.

4th. Division of the stricture.

Simple Dilatation.—Having suspected the existence of stricture, our next step must be to select a bougie of proper size and construction; and it will be best to sound the urethra with one of full size, one

large enough to fill the urethra, without putting it much on the stretch, descending *gradatim* to a smaller size, until we find one that will pass the stricture. After selecting an instrument of this description, it is to be rubbed gently between the hands until it becomes warm, and then moulded into the form of the urethra. Placing the patient erect, with his back against the wall, the bougie is to be smeared with oil, and taking the penis between the fore-finger and thumb of the left hand, it is to be drawn upwards over the instrument. With the right hand directed towards the left groin, the instrument is to be carried gently on, until you can press it no further in that direction; by a semi-turn of the hand towards the abdomen, it is then brought in almost a perpendicular position; the convex part of the bougie, which before was directed to the left side, now rests against the floor of the meatus; the hand is then to be depressed until the instrument lies horizontally, and a gentle and steady pressure continued until it passes the stricture. In that situation it must be retained as long as the feelings of the patient will permit.

In introducing the bougie, pressure should be made against the under surface of the urethra, the point of

the instrument being less likely to find its way into the lacunæ, which it is sometimes apt to do, giving rise to mistakes with respect to the cause of obstruction.

It is on the floor of the meatus, that false passages are more frequently made than *elsewhere*; and when a patient applies to you, who has been in the habit of passing the bougie for himself, or allowing a bungling practitioner to do it for him, a guarded opinion must be given; it not unfrequently happening, that, by the ordinary manner of passing this instrument, it enters the false passage, and the existence of stricture is pronounced, when in reality no such thing is or ever was present.

Under such circumstances it is better, after moulding the instrument to the ordinary shape of the canal, to give half an inch of the bent extremity an almost perpendicular direction, in order, whilst making the semi-turn alluded to, that its upper point may glide against the upper surface of the urethra. A well-marked case of this description came under my notice a short time since. A gentleman applied to me, as he imagined, with stricture, for which he had been treated by a medical practitioner, who had made many

attempts to pass a bougie, but without success. I made the same attempt, and also failed. As none of the ordinary symptoms of stricture were present, my suspicions were, that a false passage might exist. I introduced a small-sized bougie, bent in the manner named; it passed without difficulty. Anxious to be satisfied that no stricture was present, the instrument was allowed to remain in some time, so as to acquire the shape of the passage, when it was removed, and another full-size bougie bent in a similar form passed with just as much ease. Having acquired the shape of the passage, the same bougie was introduced twice or thrice afterwards, and the patient was discharged cured.

The principal object of a bougie being to act mechanically, it is important to select one that is smooth, soft, and flexible, so as to afford every facility for passing the stricture. Those which I have been in the habit of employing, and which are recommended by Sir B. Brodie, are the common bougies made of plaster spread upon linen. These are much to be preferred to the elastic gum, as being more readily moulded to the form of the urethra. I have often succeeded in passing this bougie when all others have

failed. This is the form of bougie used by Civiale; which he recommends to be introduced *very slowly*, having succeeded in this way in passing an instrument which the urethra has rejected when suddenly introduced.

But there is one objection to the common wax bougies, which I ought to mention here, as a case has lately happened to me in practice, which might have become very serious in its results.

Mr. — applied to me with stricture of the urethra. I succeeded, after a time, in passing a small-sized bougie, which was allowed to remain in the passage about five minutes. Whilst withdrawing it, there appeared to be a considerable degree of spasm present, as the bougie was embraced so tightly that it was with difficulty removed. The next evening the patient called upon me, and stated, that he had in the morning experienced a difficulty in passing his water, but that, after straining some time, he had expelled what he considered to be a fragment of the bougie; after which his water passed freely. On examining it, I found it to be a portion of the wax which formed the coating to the instrument, and which must have been removed by the spasmodic contraction of the urethra.

In order to lessen the risk of such an accident happening in practice, the following instructions will be found useful: 1st, Not to employ a bougie of large size; 2dly, To have the instrument well smeared with oil; and 3dly, Not to allow it to remain long in the passage the first time of introducing it.

The bougies used by Dr. Arntzenius for the purpose of exploring the urethra, are made of a slip of parchment, rolled up so tightly that its layers adhere pretty firmly to one another, and which has at one end of it a knob or drop of glue made of boiled parchment. This knob contributes very much to the facility of introducing the instrument into a stricture; one can feel it slipping in; and then by the heat of the urethra it melts, and the bougie unrolls of itself, while the melted glue is retained without injury to the urethra, and does not possess the slightest degree of any irritating quality. Such instruments may be manufactured of very small size, and yet possess sufficient strength; and the unrolling is rather advantageous than injurious, in consequence of the slow dilatation to which the urethra is subjected.*

* Braithwaite's Retrospect, No. 5, January—July, 1842.

A very ingenious form of instrument for overcoming the obstruction of stricture has been invented by Dr. Buchanan, of Glasgow, which may be manufactured of silver or elastic gum. "It consists of three bent tubes incased one within another, and open at both ends, so that each of the two smaller passes easily along the one immediately larger, and out at either end. The largest is ten inches long, and one fourth of an inch in thickness; the second is an inch longer, and one sixth of an inch in thickness; the third is twelve inches long, and one eighth of an inch in thickness. A probe-pointed wire passes along the inside of the smallest tube, and exceeds it in length by about an inch. The point of each of the tubes is rounded, so as to pass along the urethra without irritating it; and the upper orifice is cut obliquely. The upper part of each of the two smaller tubes and of the probe-pointed wire is graduated, so as to indicate in decimal parts of an inch the exact distance it may have passed beyond the extremity of the tube immediately larger."

When this instrument is to be used, it is converted into a single piece, by placing one canula within another; it is then introduced into the urethra, and carried on until it meets with an obstruction, which

we must endeavour to overcome by manipulating with the smaller canulæ and probe.

Dr. Buchanan thinks this form of instrument has a threefold advantage over the common bougie.

1st. The dilatation caused by the larger canula, exterior to the stricture, assists the action which the smaller canulæ and probe exercise over the stricture. 2d. The pressure employed is much safer in its application, because it is directed in the line of axis of the urethra. 3d. The compound instrument is much less likely to enter a false passage, if any exists.*

A similar kind of instrument has been recommended by Mr. Foulkes, of Liverpool. Respecting the priority of claim to the invention of it, as between these two gentlemen, we cannot interfere. Although its construction displays much ingenuity, and appears fully adequate to fulfil the indication required, yet it is too complicated to supersede the ordinary employment of the common wax bougie.

The form of bougie recommended by Sir A. Cooper, and which he was in the habit of using, is made of

* For a more particular description, and drawing of the instrument, vide Medical Gazette, vol. i., p. 916, 1840-41.

silver, of the same form as a catheter, with the exception of being conical. His mode of treating stricture was, first to ascertain the seat of disease, by passing down a wax bougie; which having accomplished, he then introduced the conical silver bougie, the point of which having entered the stricture, the further it passed the greater was the dilatation produced.

Civiale objects to the conical form, from the wider portion acting upon that part of the urethra which requires no dilatation, and recommends, instead, one cylindrical as far as within an inch of its termination, from whence it should gradually diminish to a smooth rounded extremity.

Mr. Coulson (whose authority will carry some weight), in permeable stricture, where the contraction is very great, usually commences with a small wax bougie, and gradually increases the size until it reaches No. 8. When he has succeeded in dilating the stricture to this extent, he completes the cure with the metallic bougie. Where the contraction is not great, he prefers commencing and completing the cure with the metallic bougie.

In impermeable stricture, Mr. Coulson uses the lancetted stilette, of which we shall speak hereafter.

In cases of old indurated strictures, where there is a difficulty in passing the wax bougie, Sir B. Brodie recommends the introduction of a metallic sound; but discards the common flexible metallic bougies, from their liability to lose their shape during the passage along the urethra. In lieu of these, he employs an instrument made of solid silver, of small size, from eight inches and a half to nine inches long, curved to the shape of the urethra. This is passed steadily along, and, when brought in contact with the stricture, is retained there ten or fifteen minutes, keeping steady pressure on it during the time. This is repeated once or twice in three days.

Dilatation by fluid pressure.—This mode of treating stricture was first introduced to the notice of the profession, some years since, by Dr. James Arnott; but I am not aware that it has been much resorted to by practical men. The invention reflects great credit upon this highly talented individual, whose name is a sufficient guarantee for its safe and appropriate application.

The complicated nature of the original contrivance has led him to propose a modification of the instrument, and to offer it to the profession in a much more

simple form, still combining all the essential requisites for general use. The following is his description of the instrument :—" It consists of a varnished silk tube, of the required diameter, and of a length to extend from the orifice to a little beyond the stricture, closed at one end, and having a small metallic piece at the other, into which the injecting syringe may be screwed."

" This tube, by means of a slight coating of waxy composition, is, for the purpose of passing easily, rolled into the form of a common plaster bougie; and when it is not required to be of very small diameter in its collapsed state, the requisite stiffness may be given to it by rolling it upon a small catgut or stilet; a woven silk tube properly varnished would be perfectly watertight; but this is of less importance, as a thick mucilaginous fluid will not escape but very slowly from a very imperfect tube made by sewing together the edges of a riband."

" This instrument, which may be described as a dilatable bougie, is as durable, and may be made at as little expence, as any instrument used in the treatment of stricture."

After introducing the instrument, it is to be injected

with air or fluid from a small syringe at the outer end, which is to be kept in by a small stop-cock; and in this manner pressure is made against the sides of the stricture to a very considerable amount.

For a more particular description of the construction, and mode of employing this instrument, I must refer my readers to Dr. Arnott's Treatise, in which he passes in review the inconveniences attached to the common bougie, and the qualifications by which he is induced to recommend his plan to the profession as superior to any other.

Caustic.—The next mode of treating stricture is by the armed bougie, the credit of which is due to Mr. Hunter; although it is stated by some writers, and allowed by himself, that this practice was well known to Wiseman, who lived during the reign of Charles II., and was therefore only revived by him.

To Sir E. Home, we are indebted for the first and most elaborate description of this mode of treatment, Mr. Hunter merely alluding to it in one short section of his work.

The caustic recommended by Mr. Hunter was the nitrate of silver, fixed in a port-crayon, which was passed to the seat of stricture through a silver canula,

and retained there as long as might be thought necessary.*

Mr. B. Bell, was decidedly opposed to the introduction of caustic into the urethra, under a conviction that the most hazardous consequences might ensue, either from the injury which the contiguous parts of the urethra would sustain, or the risk of a small portion of the caustic breaking off and being left in the passage. Rather than adopt this practice, he considered it much preferable to allow the disease to take its course.

Up to the present period a diversity of opinions prevails on this subject; some surgeons recommending it in almost all varieties of stricture, whilst others adopt it only in strictures of a particularly irritable nature. In France it has never been employed to any great extent.

Sir B. Brodie seldom uses caustic in his practice, and for four reasons:—1. Although it relieves spasm, it may frequently induce it; 2d. Hæmorrhage is a more frequent consequence of the use of caustic than of the common bougie, and it sometimes takes place to an

* Mr. Hunter's original instrument was simply a piece of wire, with a piece of caustic stuck on at the end with wax.

alarming extent; 3d. Where there is a disposition to rigors, caustic is almost certain to induce them; 4th. Unless used with caution, the application of caustic may induce inflammation of the parts situated behind the stricture, terminating in the formation of abscess. When resorted to, he conceives they are applicable only in spasmodic strictures, old strictures in which there is a disposition to spasm, and irritable strictures; two or three applications to which will destroy this unnatural sensibility. In the very broad, or riband strictures, I do not conceive that the application of caustic can be attended with any beneficial result; on the contrary, its repeated introduction must give rise to numerous evils; whilst the linear, or bridled strictures, I think, are likely to be relieved by this treatment.

The plan of treating strictures with caustic potash, formerly recommended by Mr. Whately, has been recently revived by Mr. Wade, who appears to employ this remedy indiscriminately in all cases where there is a marked disposition to contraction; he considers it superior to the argent. nit., as being less likely to form a slough. He directs a small piece of potassa fusa to be inserted into a hole made in the point of a

soft bougie. The eighth part of a grain is the smallest, and a grain the largest quantity, he is in the habit of using. Two notches are made in the bougie; one marking the exact distance of the stricture, the other an inch beyond. The bougie must be well mounted round the potassa fusa, so as to prevent the alkali from projecting. Armed bougies should be well rounded at their points, to guard the urethra from the action of the potash before it reaches the stricture. In impervious strictures, he generally employs No. 3 or 4 size bougies, which when armed he passes rapidly to the stricture, and keeps it there, with gentle steady pressure, for three or four minutes according to the nature of the obstruction. This is repeated every third or fourth day, but not until all irritation from a previous application has subsided.

In cases requiring the application of caustic, the utmost caution is to be observed. Judiciously employed, it is doubtless a safe and valuable remedy. Carelessness on the part of the surgeon deserves censure; and no new remedy should be resorted to, without due attention to the emergency of the case, and a proper deliberation on the experience of others. If we may judge from reports, in the hands of some

of the most eminent surgeons, caustic has admirably succeeded in effecting a cure when other known remedies have failed; still we are not to be led to an indiscriminate use of this measure, but, by a strict analogical investigation, we must form our own conclusion on the propriety of its adoption.

Piercing Stricture.—To Mr. Stafford we are indebted as the first to introduce this treatment to the notice of English surgeons; and, judging from the reports of those who have employed it in their practice, it deserves no mean place in the ranks of operative surgery.

The cases of stricture amenable to this operation are, 1st. Impermeable stricture; 2d. Broad stricture, complicated with fistulous openings in the perinæum; 3d. Irritable stricture.

The mode of operating is simple. The exact seat of the stricture is first ascertained by a common wax bougie, the distance of which from the orifice is known by marking this instrument. The perforator (which may be described as a catheter concealing a lancetted stilette mounted on a spiral spring) is then introduced, and when its point reaches the stricture, the handle of the stilette is pressed gently and gradually forwards,

by which means the lancet is protruded against the sides of the stricture, and divides the contraction. Where the stricture is very broad, it will be necessary to repeat this operation every other day until the whole length of the contraction is gone through. In the narrow linear stricture, one operation will complete the division; after which a silver catheter, or smooth wax bougie, should be introduced.

Mr. Coulson tells me, that he is in the habit daily of resorting to this practice. Sometimes he operates on three or four cases of a morning; and he has never yet met with any untoward symptoms arising from it. The patients come to his house; the operation being to him as simple as passing a bougie.*

Although Sir B. Brodie has never adopted Mr. Stafford's plan, yet he has employed a modification of it, and with success. The case was stricture near the bulb, complicated with fistulous openings in the perinæum.

The patient was placed in the same position as in lithotomy, and a full-sized plaster bougie introduced. By an incision in the perinæum, the fistulous opening was dilated, and the membranous portion of the

* Vide cases in Medical Gazette, July 15, 1842.

urethra laid open, as far forwards as the stricture; the bougie was then withdrawn, and a straight silver tube, with a narrow slit at its extremity, through which a small lancet could be made to protrude by pressing on a stilette, was then introduced; the fore-finger of the left hand was passed into the perinæal opening, and pressed against the posterior surface of the stricture; the lancet was then made to protrude, and the stricture divided. The after-treatment was conducted in the same manner as Mr. Stafford's; the wound healed, and the patient recovered without a bad symptom.*

During my dressership with Mr. Guthrie, a patient was admitted into the Westminster Hospital with impermeable stricture, on whom that gentleman operated in a manner similar to the above, and with the like success. I have frequently met with this patient since, and he tells me he has not had any return of his complaint.

Hæmorrhage sometimes ensues from passing the bougie or catheter. When this is slight, it need excite no alarm, as by rest in the recumbent posture it will cease spontaneously; but where the hæmor-

* The cutting edge of the lancet must be directed towards the pubes and perinæum.

rhage is profuse, or dribbles slowly from the urethra, pressure and the cold dash must be resorted to. Sir A. Cooper was once called to a gentleman, who had allowed a bungling surgeon to pass a bougie for him; hæmorrhage came on so often afterwards, that he was compelled to cut down upon the artery of the bulb, and divide it, by which the bleeding was permanently subdued.

Strictures of the urethra are very liable to return. It is therefore advisable for the patient, some time subsequent to the period of cure, to get an instrument occasionally passed for him, in order to obviate all chances of relapse.

EPIDIDYMITIS,

OR INFLAMMATION OF THE TESTICLE.

This affection used to be called by the early writers *hernia humoralis*, under the impression that it arose in consequence of “the venereal miasmata inspissating the semen in the convolutions of the epididymis.”*

Epididymitis is very unfrequent during the more active stages of gonorrhœa, and but rarely occurs until the discharge has in a great measure ceased. This fact has led many erroneously to suppose, that a sudden suppression of the gonorrhœal fluid will as suddenly excite inflammation of the testes; whereas, indeed, the contrary is the case, and the sooner a gonorrhœa is suppressed the less chance is there of epididymitis ensuing.

Epididymitis appears to arise from inflammation attacking the prostatic portion of the urethra, and from thence spreading along the vas deferens to the

* Astruc.

convolutions of the epididymis, and ultimately to the body of the testicle itself.

Generally speaking, the first symptom complained of, in epididymitis, is pain along the spermatic cord, extending to the lumbar region, although at times the patient experiences a sensation as if a few drops of urine were retained within the prostatic portion of the urethra. But in the earlier stages the symptoms are not well marked, and the patient's attention is not directed to the disease until the whole gland has become affected, when, on account of the unyielding nature of the tunica albuginea, the pain becomes so excessive, and the testicle so tender, that the slightest touch produces the most intense anguish.

As the disease progresses, the scrotum becomes inflamed, and the testicle enlarges to such a degree, that the natural rugæ on the surface of the scrotum are completely effaced, the skin appearing stretched tightly over the gland; the veins swell, and the capillary circulation is quickened. Nausea is a very frequent attendant on epididymitis, as well as colicky pains of the stomach and bowels. Vomiting is sometimes so urgent and constipation so obstinate, that the disease has been mistaken for strangulated hernia.

These symptoms are accompanied with pyrexia, quick pulse, thirst, heat, dryness of the skin, constipation, and restlessness—in fact, with all the symptoms of inflammatory fever.

When the disease is fully established, pains in the lumbar and inguinal regions are the symptoms most loudly complained of. These pains appear to come on in regular paroxysms, and to be induced in a great measure by spasmodic contractions of the cremaster muscle.

We rarely find both testicles affected simultaneously; the left testicle appears more obnoxious to the disease than the right. M. Ricord attributes this to the general custom of carrying the scrotum on the left side of the seam of the trowsers.

Certain constitutions are peculiarly liable to this disease, and there are some individuals with whom it is certain to follow an attack of gonorrhœal urethritis. With such—in fact, in all cases—a suspensory bandage, should be worn immediately a gonorrhœa makes its appearance, and all stimulating food and drink, together with much exercise, be prohibited.

Independently of gonorrhœa, epididymitis may arise from a variety of other causes; thus, the intro-

duction of a bougie frequently induces it: the direct application of mechanical violence, the irritation of stone in the neck of the bladder, and the operation of lithotomy, not unfrequently excite it.

TREATMENT OF EPIDIDYMITIS.

The first and most important step in the treatment is the abstraction of blood, either from the arm, or by means of leeches. Both the mode of bleeding and the quantity abstracted must be regulated entirely by the habit of the patient. If he be of a full plethoric habit, a dozen leeches at least must be applied to the scrotum, or along the course of the cord, and the parts well fomented afterwards with warm water, in order to promote the bleeding.

A very convenient mode of abstracting blood locally is to open three or four veins of the scrotum, whilst the patient is in the erect position, and afterwards to foment the parts well with warm water. When as much blood is withdrawn as may be desirable, its flow may be readily checked by the patient lying on his back. Should the pain in the back be severe, tapping on the loins will in general give the most decided relief.

The testicle must not be allowed to hang pendent,

but should be raised towards the abdomen, and kept as much in a perpendicular position as possible, in order to facilitate the return of blood. Rest in the horizontal position is indispensable to a speedy cure of the disease, and should on no account be omitted.

Brisk saline purges are to be administered, together with nauseating doses of antimony, at regular intervals; but should sickness previously exist, the antimony should not be given.

After the abstraction of blood, I have lately resorted to compression, as recommended by M. Ricord, and with the most decided advantage. The strapping, when well applied, affords instant relief, and is followed in a short time by an almost total cessation of pain.

M. Ricord employs the Empl. c. hydrarg.; but I have found the common adhesive plaster to answer every purpose. The mode of applying it is simple. The inflamed testicle must be drawn down to the bottom of the scrotum without stretching the cord, and at the same time separated from the opposite side; a slip of plaster, about half an inch in width, is then to be placed above the testicle, close to the insertion of the cord; another strip is to be applied in a similar manner a little below the former, encircling the globus

major of the epididymis; successive strips are to be continued, until the whole body of the testicle is subjected to an uniform pressure. Longitudinal strips are to be applied in a similar manner, in order to exercise pressure on the lower part. If the pain diminishes, this dressing must be allowed to remain on until the disease has left.

The testicle rarely regains its pristine state: either the epididymis remains hardened, or the body becomes soft and flabby, or both may exist together. This is not of so serious a nature as represented by Mr. Bell, who states that such a condition is certain to induce impotence; but I have never met with a case in which the secretion of semen has been interrupted from such an occurrence.

The hardness and enlargement of the testicle, which sometimes remain after the inflammation has subsided, must be treated with calomel and opium, until the mouth is slightly affected,* together with the local application of mercurial liniment, spread on a piece of flannel.

Suppuration is not a frequent result of inflammation of the testicle; it very rarely happens, unless the cellular tissue of the scrotum has been much inflamed.

When this threatens, we must endeavour to expedite the process by hot fomentations, poultices, &c.; and, immediately fluctuation is discovered, give a free escape to the matter with the lancet, treating it afterwards as an ordinary abscess.

Hydrocele is more frequently a result of chronic inflammation of the tunica vaginalis, than the active inflammation of which we have been speaking. Still epididymitis may give rise to this affection; and when such occurs, it will generally be removed by cold and slightly stimulating lotions, and by exhibiting internally such medicines as excite the activity of the absorbents, such as the iodide of mercury. Painting the scrotum with the strong solution recommended at page 102, will be found of considerable service in removing the fluid.

At the same time that we are attending to the more urgent symptoms of inflammation, our care should also be directed to the condition of the urethra. Should the passage exhibit any trace of the original disease, we must administer those medicines internally which are known to have an anti-gonorrhœal tendency, as it would be extremely unwise to combat solely with effects, whilst the primary disease remained intact.

PHYMOSIS AND PARAPHYMOSIS.

PHYMOSIS is a term applied to that condition of the prepuce which prevents its being drawn back from off the glans. This affection is sometimes met with as a congenital malformation, when, unless it interferes with the natural functions of the part it invests, it does not require any interference of surgery.

More frequently, however, phymosis is occasioned by inflammatory turgescence, the exciting causes of which are various. Thus, venereal ulceration, balanitis, and posthitis, vegetations, and gonorrhœa, may be mentioned as the most frequent. Both phymosis and paraphymosis oftener come under our notice connected with or as the result of chancres, than of gonorrhœal urethritis; but gonorrhœa is apt to induce this affection, more especially if it be attended with inflammation of an œdematous character, or if it be connected with posthitis or balanitis.

The descriptions of phymosis requiring operation are—

1. Congenital phymosis, interfering with the perfect performance of the natural functions of the genital organs.

2. Acquired phymosis, connected with induration of the preputial margin.

3. Phymosis threatening gangrene.

4. Phymosis connected with chronic posthitis.

Cases of temporary phymosis will in general yield to the application of cold saturnine lotions. In all cases therefore, and especially recent ones, unconnected with induration of the margin of the prepuce, and where delay is of no consequence, we should in the first place resort to local applications; and of these, cold saturnine lotions, injections of the same between the prepuce and glans (keeping the penis raised towards the abdomen), rest in the recumbent position, saline aperients, low diet, &c., will be found the most serviceable. Leeches ought on no account to be applied, as, independently of the erysipelatous inflammation at times induced by them, the risk of infecting the leech-bites with the venereal virus is a sufficient objection to their use. The same objection equally applies to puncturing the œdematous prepuce, in order to afford an escape of the fluid.

Before attempting to remove phymosis by operation, it is necessary to satisfy ourselves that no chancres are present. If, during the process of investigation, chancres are discovered, the operation must be delayed until these have healed. But, as there is no rule without exception, so this cannot be exempt. When therefore gangrene threatens the destruction of the soft parts, the sooner the operation is performed the better.

Congenital phymosis in the young subject does not necessarily require the aid of surgery for its removal; unless it interferes with the flow of urine, it should not be meddled with. Under these circumstances even, we are not warranted in resorting to the knife without first adopting less objectionable treatment.

In the young child, the worst forms of phymosis will at times yield to warm fomentations alone. Immediately after each fomentation, we should endeavour to dilate the contracted orifice, by drawing it back over the glans, which will in this manner act as a wedge. Should these means fail, we are to attempt dilatation by the aid of some mechanical contrivance; and in the event of neither of these proving successful, we may then have recourse to the knife. Congenital

phymosis, although it may occasion no inconvenience during childhood, is at times in the adult a serious obstacle to coition, and therefore requires an operation for its removal.

Congenital phymosis connected with an excess of length of the prepuce may be operated on by circumcising the whole of the constricted portion, which may be done as follows.

The prepuce is to be laid hold of with a pair of forceps or with the fingers of the left hand, and drawn forward, whilst with a bistoury the whole of the constricted part is removed with a circular sweep. The hæmorrhage after this operation is trifling, and may be readily checked by the application of cold. If the prepuce is short, the older method of slitting up the foreskin will suffice. These operations are generally followed in a few hours after by œdematous inflammation, for which no other application is required than cold saturnine lotions, and keeping the penis raised towards the abdomen.

Phymosis connected with indurations of the preputial margin should be treated by the first operation, *viz.*, circumcision. From the enlarged state of the preputial arteries consequent on this disease, hæmor-

rhage is at times considerable, and often requires the application of the ligature.

Phymosis threatening gangrene imperatively demands that an immediate liberation of the constricted parts should be effected. These parts are peculiarly liable to gangrene; any obstruction, therefore, to a free and easy circulation through them should be at once removed. Not only the prepuce, but the glans itself, is sometimes totally destroyed.

Caution in the use of mercury, when these parts are in a state of irritation, cannot be too rigidly observed.

Phymosis connected with Chronic Posthitis.—These are cases which without an operation we shall often find difficult to cure.

The immediate proximity of the two mucous surfaces, and the difficulty we experience in bringing our remedies in contact with these surfaces, are the obstacles which oppose a return of these parts to their healthy condition. After a fair trial, therefore, of the remedies recommended for temporary phymosis, we may resort to the operation with a certainty of success.

The mode in which I perform this operation differs from the other two, and is as follows:—

I introduce a grooved director between the prepuce and glans, on its dorsal aspect, carrying it as far backwards as the corona. By raising the director upwards from off the glans, the prepuce is put on the stretch, and the course of the groove is thus distinctly marked. I then pass the flat surface of a thin-bladed knife steadily along the groove until it reaches its distal extremity, when by a semi-turn of the handle the cutting edge of the knife is brought into contact with the mucous lining of the prepuce, which, together with the cellular tissue, is, by a slight action on withdrawing the knife, cut through, the skin being left intact.

Where the phymosis is unconnected with an excess of length of the foreskin, it retracts upon the glans, which acts as a wedge, and keeps the subcutaneous wound sufficiently dilated until it has granulated and healed. If the foreskin be long, the wound is to be kept dilated with lint introduced within its contracted orifice.

The after-treatment is the same as that pursued in common posthitis.

If phymosis be complicated with adhesions between the prepuce and glans, they are to be carefully dissected back; but where these adhesions do not admit the

possibility of such a treatment, they must be allowed to remain, contenting ourselves with removing such a portion only of the foreskin as will allow a free evacuation from the urethral passage.

PARAPHYMOSIS.—This affection, like the former, is not always the result of disease, but may arise from a naturally contracted prepuce being forcibly retracted upon the glans penis, either from sexual intercourse, or from manipulation, as it is sometimes met with in young children.

The treatment differs very little from phimosis. Of course, before resorting to an operation, we should endeavour to replace the prepuce by manual means, and this may be sometimes effected by compressing the glans between the thumb and two first fingers of the left hand, in order to empty the distended vessels, whilst with the other hand we endeavour, by gentle traction, to pass the prepuce over the corona glandis. The constriction being relieved, cold saturnine lotions are to be applied, in order to relieve the pain and inflammation which may ensue.

VEGETATIONS, OR WARTY EXCRESCENCES.

The situations in which we most commonly meet with these excrescences are the prepuce and glans; and I have occasionally seen them seated around the clitoris of the female. They are not necessarily of a syphilitic or gonorrhœal origin, but appear to arise in many instances from a want of due attention to cleanliness in removing the secretion of the glandulæ odoriferæ, which in some persons with long foreskins is at times profuse.

These excrescences, when once formed, spread with great rapidity; and, unless checked in their progress, surround every portion of the glans in such a manner, that a person unacquainted with the disease would be puzzled to account for its cause.

The discharge sometimes attending these vegetations is very offensive, and bears a close resemblance to gonorrhœa; a circumstance to be borne in mind,

in order to obviate the distress which an unjust suspicion might otherwise inflict.*

Their extreme vascularity renders them very prone to bleed, and frequently without the intervention of any mechanical cause. I recollect the case of a young lady in whom the hæmorrhage was so profuse, as to require the most cautious watching, and which was at length stopped by the lunar caustic. The mere act of drawing back the prepuce will at times cause them to bleed profusely.

There are two methods which I usually employ for their removal, *viz.*, the caustic and ligature. The former we shall find most useful for those warts which are connected by a broad base to the glans or prepuce. The caustic I generally prefer is the Nit. argent., which should be applied daily, until not only the warts but a portion of the epithelium is removed with them. After each application of the caustic the parts are to be enveloped in a saturnine lotion.

I have sometimes succeeded in removing them with the strong solution of iodine mentioned at page 102,

* Sir A. Cooper believed this discharge to be infectious, and has related many cases in proof of it.

which should be applied with a camel-hair pencil. A powder composed of equal parts of verdigris and savin leaves sprinkled upon them, will sometimes effect a cure.

Corrosive sublimate, and the mercurial ointment, may be tried with a similar prospect of success. Warts of an indurated character are rather more difficult to remove than the soft wart. M. Ricord recommends their excision; but we may generally succeed in removing them by touching them lightly with a paste recommended by Sir B. Brodie, composed of verdigris, sulphate of copper, nitric oxide of mercury, of each two drachms; oxymuriate of mercury, one drachm; with as much hog's lard as is necessary to blend them together. After applying this, they are to be covered with dry lint. The application is to be repeated until the warts have sloughed away.

The application of the ligature is so simple, that no remarks are requisite on the subject, merely observing that those most suitable for this treatment are such as are connected to their attachments by narrow pedicles.

BLÉNORRHŒA OPTHALMIA.

This disease was noticed by Anthony Brassavolus in 1551, who, in speaking of the symptoms of syphilis, has connected it with gonorrhœa. He says, the ophthalmia which frequently attends this disease proves very obstinate, and must be treated by bleeding, cupping, and aperients, and, as local applications, the use of astringent collyria; but a seton in the occiput is one of the best remedies. He states, that he had never seen an instance of loss of sight from this disease at Ferrara, although at Rome and Venice such an event was not uncommon.

This affection was also slightly alluded to by John de Vigo, of Genoa, in 1503; as also by John Maynard, in 1519, of Ferrara.

Blénorrhœa ophthalmia may perhaps be regarded as one of the most formidable diseases attendant on gonorrhœa, and, unless speedily checked is very likely to produce a total destruction of the sight. This disease

I believe, in every instance, to be produced by a direct application of the gonorrhœal discharge to the eyes. Hence it is that we meet with it more frequently amongst infants, who are infected during birth, and in whom the disease is most difficult to treat.

The attack is generally very sudden, and commences first in the conjunctiva, which becomes red, painful, and watery. These symptoms rapidly become worse; and the conjunctiva swells in such a manner, that the cornea, as yet retaining its healthy appearance, looks as if it were depressed in the centre of the eye—a state to which the term *chemosis* is applied. This condition of the conjunctiva advances with such rapidity, that both lids become everted, and the eye looks as if it were but one mass of red flesh, from which a number of small points pour out a discharge similar in character to gonorrhœa.

If the disease be not checked, a number of small ulcers begin to appear on the conjunctiva, and the inflammation extends to the interior of the eye, producing an effusion of lymph into the anterior chamber. The cornea in a little time sloughs away, and the aqueous humour, together with the iris, escapes

through the opening thus made. At times the lamellæ of the cornea being projected, it is expanded into the form of a bladder, to which the term *staphyloma* is applied, from its fancied resemblance to a grape; or the cornea, remaining in its natural position, loses its transparency from interstitial deposit.

The diagnosis of this disease is not at all difficult to arrive at: the violent and rapid character of the inflammation, coupled with the presence or previous existence of a gonorrhœa, fully establish its nature.

Our prognosis should at all times be guarded, as the most violent forms of inflammation will succeed to those which in the earlier stage were comparatively mild, and *vice versâ*.

From the rapidly destructive nature of this disease, it is very evident that our chances of success in arresting its progress rest on the proportionably active measures we employ. Blood is to be abstracted without delay, either from the arm, or by cupping, or leeching the temple. We must act with decision and boldness; after the bleeding, therefore, we are to adopt M. Ricord's recommendation of reverting the lids, and passing a stick of lunar caustic quickly and lightly over them, applying a lotion afterwards of *Liq. plumbi acet.*

The risk of inflammation extending to the deep-seated tunics of the globe of the eye is great; in order, therefore, to meet the possibility of such an event, we must be prepared with those remedies which are known to have an almost specific controul over certain forms of inflammation, *viz.*, calomel and opium; in addition to which, saline aperients, and tartrate of antimony, are to be exhibited internally.

The danger of iritis chiefly depends upon the amount of adhesive matter which is thrown out. In order to prevent adhesions taking place, and a consequent immobility of the iris, belladonna is to be applied around the orbit, so as to keep up a continued dilatation of the pupil. The destruction of the eye appears chiefly to be induced by strangulation, the cornea being too tightly embraced by the swollen conjunctiva. Chemosis, therefore, demands our most serious attention; and, when present, the only method of cure is excision of the conjunctiva, in order to remove all cause of compression.

There are two methods by which this operation may be performed, either by passing a small curved needle, threaded, horizontally through the conjunctiva, and, by raising it, to excise it with a pair of curved

scissors, or else in lieu of the needle and silk, to employ a small hooked forceps. In either case the patient must be placed with his face against the light, and his head supported against the chest of an assistant, who with one hand keeps the palpebræ of the diseased eye apart from each other.

Chemosis of the palpebræ must be treated in a similar manner.

This operation will not interfere with our application of the nitrate of silver, which should be continued as long as any puriform secretion takes place, always observing great caution whilst applying it, and watching its effects most narrowly.

Conjointly with these measures, we may resort to the application of blisters behind the ears, or the nape of the neck; and indeed none of the accessory treatment recommended in catarrhal ophthalmia is to be omitted.

When sloughing has commenced, and the conjunctivitis assumes a chronic type, the patient's health being at the same time much shattered and reduced, we must prescribe wine and bark, together with a light generous diet, and change of air.

THE END.

PRINTED BY R. MACDONALD, GREAT SUTTON STREET, CLERKENWELL.
